

THE *Nation's Schools*

DECEMBER

Smoke Is the Killer!

Fallout Protection: A Plan for Schools

Responsibilities for the School Administrator

Highlights of Three National Conventions

The Meaning of Christmas

TABLE OF CONTENTS ON PAGE 3



Mock School Fire Teaches Evacuation in Waukesha

(Story on page 53)

LEVOLOR VENETIAN BLINDS WERE ESPECIALLY DEVELOPED FOR SCHOOLS TO WITHSTAND CONSTANT USE

The sturdiest of all venetian blinds are LEVOLOR Heavy Duty, (Orange Line) designed specifically for school use.

The head channel is .025" thick—a safety factor for extra wide, extra heavy blinds.

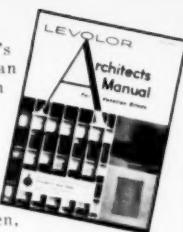
Virgin aluminum slats are pressure plastic coated to give a hard, smooth finish. The photomicrographs below are magnified one hundred times. Compare the finishes. These are just a few of the features that make Levolor Heavy Duty Venetian Blinds first choice in schools everywhere.



The paint finish on a Levolor Brand Aluminum Slat.

Paint finishes on competitive brands.

Write for the "Levolor Architect's Manual for Venetian Blinds." The fourth edition of this invaluable illustrated book is now available on request. No obligation. Write to Levolor Lorentzen, Inc., 724 Monroe St., Hoboken, N. J.



LEVOLOR VENETIAN BLINDS

CUSTOM MADE BY FRANCHISED MANUFACTURERS

You pay no more for unequalled SLOAN quality...



the "Why" of an Inside Cover...

- Remove the outside cover of a Sloan Royal Flush Valve and you'll find it also has an inside cover—a functional part not found in other flush valves. Why two cast brass covers where seemingly one would do? Because Sloan engineering found special advantages in their combined use to assure dependable trouble-free flush valve operation. This "extra" or inside cover performs these three vital functions:
- The contour of the inside cover insures the proper flexing action and long life of the diaphragm
- The inside cover acts as a friction washer protecting the diaphragm from distortion when the outside cover is screwed down
- Working in cooperation with the outside cover, it makes a stronger union of body and cover

To be sure, it costs more to produce the Royal with an inside cover of cast red brass. But this standard feature contributes to the performance, protection and strength of the Royal. It's another bonus of quality you expect from Sloan. And since you can have Sloan quality at no extra cost, why not make sure you get it.

SLOAN FLUSH VALVES



SLOAN VALVE COMPANY • 4300 WEST LAKE STREET • CHICAGO 24, ILLINOIS

ALL NEW CLARKE FLOOR MAINTAINER

FM-17 17" brush diameter,
1/4 h.p. motor. Also 14", 15"
and 20" sizes.

has everything you've wanted
in a floor machine

**EASY, WHISPER-QUIET
OPERATION**

**FAST, COST-CUTTING
PERFORMANCE**

FM-17 with solution tank.

This new Clarke meets every need — fits the requirements of all types of buildings, all kinds of floors, traffic conditions and hours of usage. It's the result of years of research and it combines all the features everyone has always wanted in a floor machine — for instance:

- First, this new beauty does the complete job — it scrubs, polishes, steel wools, dry buffs, disc sands and grinds — even shampoos rugs and carpets.
- Its exclusive, power packed, totally enclosed motor, designed especially for the new Clarke, drives the brush at rated speed on any 15 amp circuit even when steel wooling wet floor seal or disc sanding.
- It's whisper-quiet — so quiet you'll wonder whether it's really working.

- It's perfectly balanced for easy handling.
- Its low overall height — only 10 1/8" — permits working beneath low furniture and fixtures.

Besides all these, the new Clarke offers such other important features as rugged construction, fully adjustable handle, dual control switch for operation with either or both hands, new electrically controlled solution feed for scrubbing and shampooing. And, the machine does every maintenance job better, faster, at lower cost.

Ask your Clarke distributor to prove it by demonstrating the new Clarke maintainer on *your* floors. Or, write today and we'll arrange this for you.

BUY CLARKE—CLEAN WITH CLARKE
THE BEST KNOWN NAME IN FLOOR MACHINES

5012 E. Clay Avenue, Muskegon, Michigan

Clarke
FLOOR MACHINE COMPANY
Formerly Clarke Sanding Machine Company

Authorized Sales Representatives and Service Branches in Principal Cities. Distributed in Canada: G. H. Wood & Co., Ltd., Box 34, Toronto 14, Ont.

THE Nation's Schools

DECEMBER 1959

THE MAGAZINE OF BETTER SCHOOL ADMINISTRATION

Vol. 64 No. 6

Articles in this issue

'Simulated Horror' Taught Evacuation in Mock School Fire

LEO E. BUEHRING

First of its kind in school history is the fire drill in which a Wisconsin elementary school was evacuated under conditions simulating an actual school fire. This "dry run" fire precaution, advocated by a Chicago evacuation specialist, involved teamwork between the community and school, with the school furnishing "victims." .53

Smoke Is the Killer!

GEORGE REASONS

Children's lives are snuffed out by smoke, not flames, concludes the Los Angeles fire department after setting 75 fires to a condemned school building. The effectiveness of vents, curtain boards, sprinklers and other school fire safety equipment is analyzed and their established uses are questioned 61

'Competent Business Management Improves Education'

LEO E. BUEHRING

JAMES J. BETCHKAL

A comprehensive report of the 1959 A.S.B.O. convention details how more than 2200 delegates, chanting "there's no business like school business," met in Miami Beach to try to solve problems in such subjects as finance, purchasing, personnel, maintenance, schoolhouse planning, food service, and pupil transportation 74

Responsibilities for the School Administrator

RUSSELL T. SANFORD

Preparing the budget, originating purchases, and comparing, appraising and testing the makes of products are the responsibilities delegated almost exclusively to the administrator and his staff, according to the findings of two TNS studies conducted separately among administrators and board members 76

Quality for Rural Schools

MILDRED WHITCOMB

How rural and "rurban" schools can give "excellent" schooling took the attention of 400 superintendents as the N.E.A. Department of Rural Education and the Division of County and Rural Area Superintendents enjoyed Western hospitality in Seattle 80

Christmas Creche May Be Placed on School Grounds

LEE O. GARBER

School boards do have authority to permit the use of school property by religious groups provided schools make no contribution through employee donations of time or money, rules a New York court in a dispute involving the placing of a nativity scene on school premises during a Christmas recess 82

Continued on next page ▶

Editorial Director, ROBERT M. CUNNINGHAM Jr.

Assistant to the Editor, JAMES J. BETCHKAL

Advertising Director, J. W. CANNON Jr.

Department Consultants: Audio-Visual, W. A. WITTICH; Business Administration, B. R. OOSTING; School Lunch, MARY DEGARMO BRYAN

Editorial and Publishing Offices: 919 N. Michigan Ave., Chicago 11, Ill.

Cleveland Advertising Office: 321 Hanna Bldg., Cleveland 15, Ohio

Western States Advertising Representative: Wettstein, Nowell & Johnson, Inc., Los Angeles, San Francisco

Editor, ARTHUR H. RICE

Assistant Editors: MILDRED WHITCOMB, MARY T. RICE, MARJORIE WENGER

Art Director, LOIS BAUMAN

Feature Editor, LEO E. BUEHRING

Editorial Assistant, PAT RUSSELL

Eastern Office: 119 W. 40th St., New York 18, N. Y.

THE Nation's Schools

OPINION POLL

Too Much Emphasis on High School Varsity Athletics?

Nearly half of the administrators answering this month's Poll believe that high school varsity athletics, especially football and basketball, are overemphasized. They also oppose organized athletic competition for elementary school children.

SUPERINTENDENTS' RESPONSES 79

SCHOOLHOUSE PLANNING

Fallout Protection: A Plan for Schools

New research shows how schools can be constructed to minimize dangers in atomic attack. Our report summarizes a study sponsored by the Office of Civil and Defense Mobilization. Four case studies are presented with models and floor plans.

WALLACE B. CLELAND 63

SCHOOL LUNCH

Schools Can Teach Teens To Eat Right

Since teen-agers are usually the most poorly nourished group in the population, the author lists ways that the home and school can improve the health habits of this group. She also outlines teen-age activities designed to encourage proper eating.

ANNA DE PLANTER BOWES 86

OTHER FEATURES

Administrator's Clinic	6	News in Review	128
Looking Forward	51	Coming Events	138
Chalk Dust	81	About People	140
On the Shelf	112	What's New for Schools	145
Report From Washington	120	Index of Advertisers	161



Published monthly by The Modern Hospital Publishing Company, Inc. (subsidiary of F. W. Dodge Corporation), 919 North Michigan, Chicago 11, Ill., U.S.A. Irving W. Hadsell, president; Robert F. Marshall, executive vice president; Robert M. Cunningham Jr., vice president and editorial director; H. Judd Payne, vice president; J. W. Cannon Jr., assistant vice president; Stanley R. Clague, secretary; John P. McDermott, treasurer. Subscriptions: 1 year, \$4; 2 years, \$6. Outside U.S., U.S.P., Canada, 1 year, \$6; 2 years, \$10. Current copies, \$1 each. Member, Audit Bureau of Circulations; Associated Business Publications; Educational Press Association of America. Microfilms, University Microfilms, 313 N. First St., Ann Arbor, Mich. Second-class postage paid at Chicago, Ill., and at additional mailing offices. Published on the 20th of the month preceding the date of issue. Allow 30 days in advance of publication date for change of address.

Change of address notices, undeliverable copies, and subscription orders should be sent to: The NATION'S SCHOOLS, Circulation Department, 919 North Michigan Avenue, Chicago 11, Ill.

EDITORIAL CONSULTANTS

ADMINISTRATION

John Guy Fowkes University of Wisconsin
 Calvin Grieder University of Colorado
 James M. Spinang Rochester, N.Y.
 Herman L. Shibley Indianapolis

BUSINESS

B. R. Oesting Hinsdale, Ill.
 Francis R. Scherer Rochester, N.Y.
 John W. Lewis Baltimore
 A. C. Hulson Jr. Knoxville, Tenn.

FINANCE

Arvid J. Burke New York State Teachers Assn.
 Ernest G. Lake Fullerton, Calif.

INSTRUCTION

Willard E. Goslin George Peabody College
 F. Dean McClusky University of Calif., L.A.

PERSONNEL

C. C. Trillingham Los Angeles County
 K. E. Oberholzer Denver

STATE ADMINISTRATION

J. C. Wright State Supt., Iowa

RURAL SCHOOLS

Julian E. Butterworth Ithaca, N.Y.
 M. L. Cushman University of North Dakota

INTERPRETATION

Herold C. Hunt Harvard University
 Paul J. Minar Glencoe, Ill.

SCHOOL LAW

Lee O. Garber University of Pennsylvania

SCHOOL LUNCH

Mary deGarmo Bryan Columbia University

SCHOOL PLANT

Ray L. Hamon George Peabody College
 John H. Herrick Ohio State University
 Thomas J. Higgins Chicago
 John L. Cameron U.S. Office of Education

AUDIO-VISUAL

Walter A. Wittich University of Wisconsin

HIGHER EDUCATION

David D. Henry University of Illinois

EDITORIAL ADVISORY BOARD

Homer W. Anderson Lakeland, Fla.
 S. M. Brownell Detroit
 Irby B. Carruth Austin, Tex.
 Francis S. Chase University of Chicago
 Forrest E. Conner St. Paul
 C. L. Crawford Mankato Teachers College
 E. N. Deardorff Newton, Mass.
 John R. Ensminger Ball State Teachers College
 Finis E. Engleman Exec. Secy., A.A.S.A.
 Martin W. Essex Akron, Ohio
 Wendell Godwin Topeka, Kan.
 F. G. Hochwalt Nat. Catholic Welfare Confer.
 J. Harold Husband Gross Pointe, Mich.
 Schuyler C. Joyner Los Angeles City
 H. M. Kallen New School for Social Research
 James D. MacConnell Stamford University
 Hollis A. Moore Sr. Tyler, Tex.
 Robert D. Morrow Tucson, Ariz.
 P. M. Muir Toronto, Ont.
 J. F. Redmond New Orleans
 W. C. Reutter University of Wyoming
 Mark C. Schinnerer Cleveland
 Paul W. Seegers Indiana University
 Harold Spears San Francisco
 Lindley J. Stiles University of Wisconsin
 Edmund H. Thorne West Hartford, Conn.
 Paul D. West Fulton County, Ga.
 W. T. White Dallas
 H. L. Willett Richmond, Va.
 Benjamin C. Willis Chicago



"One Burroughs Typing Accounting Machine gives us complete financial control, ample capacity for growth,"



says H. Austin Sheldon, District Clerk and Business Manager, Union Free School (District No. 2), West Babylon, N.Y.

"Rapid expansion outmoded pen-and-ink accounting for our schools. It was too slow, too costly and often inaccurate.

"Installing one Burroughs Typing Sensimatic Accounting Machine solved our problems in short order. We now have an up-to-date, accurate accounting of all funds at all times. And, just as important, we have ample capacity for growth.

"This single machine automates all our accounting—including a unique method of general check writing. It gives us full description of entries. It even does some jobs simultaneously. As a result, job time has been cut as much as 70% in certain areas. And our ledgers are prepared so concisely that one file drawer houses all the financial records for the whole district."

Is your school district outgrowing its accounting? Then it's time to talk to Burroughs Corporation—experts at tailoring systems that team maximum control with maximum capacity. Check with the Burroughs Systems Counselor at our nearby branch. Or write Burroughs Corporation, Burroughs Division, Detroit 32, Michigan.

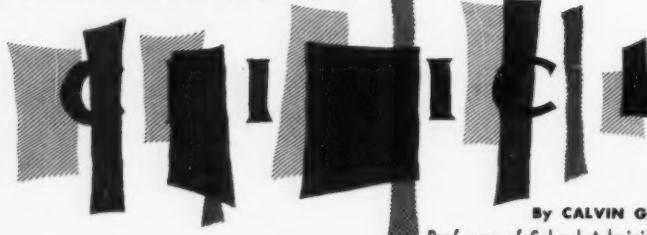
Burroughs and Sensimatic—TM's



Burroughs Corporation

"NEW DIMENSIONS / in electronics and data processing systems"

ADMINISTRATOR'S



By CALVIN GRIEDER
Professor of School Administration
University of Colorado

Why Base an Administrator's Pay on That of a Teacher?

IS A beginning elementary school principal worth 1.2 times a teacher, or 1.4, or 1.31, or what? Likewise, is a high school principal worth 1.4 times a teacher, or 1.65, or what? How about the superintendent? Is he worth 2.5 times a teacher, or 3.2, or just how much?

In the last couple of years a veritable rash of "ratio salary schedules" or "index salary schedules" has appeared. They attempt to establish salary levels for various positions in relation to some basal position, such as that of a beginning teacher. For each year of service in each category of personnel a figure is given setting the ratio of salary to the designated base. Provisions are usually made also for prior service and for several levels of graduate study.

Once the various series of ratios or indices are determined, the plan is sort of self-operating. (Of course the dollar figures must be calculated for budgeting and accounting.) Any change in the base salary, such as that of a beginning teacher with a bachelor's degree and no prior service, automatically changes all the other salaries.

The ratio or index scheme does away with flat increments, such as \$200 a year, and tends to result in progressively larger dollar increases for persons at successively higher position levels.

Over against these advantages, or what are commonly regarded as such, is the difficulty of selecting "correct" ratios or indices for all levels of positions for each category of personnel. This difficulty is also confronted in formulating schedules employing actual dollar figures, but the latter are in somewhat grosser dimensions, often in \$100 units.

But why try to estimate the value of services, especially those of administrators and other nonteaching personnel, in terms of the value ascribed to the services of a beginning teacher? Those who subscribe to ratio or index systems seem to be the people Jacques Barzun was thinking of in a lecture last summer on the tyranny of numbers, when he said: ". . . they are governed and overawed by the numbers so produced . . . the figures taken as solid evidence of merit." The more complicated the scheme, the more reverence it seems to command.

For the teacher category a system of ratios or indices is fairly acceptable, I suppose, but I would limit its use to this group if I used it at all. Rather than rely on such a system of numerology for other groups, I would prefer to follow the recommendation made by Herold C. Hunt and myself to the Los Angeles city school system for personnel other than teachers:

"It is suggested that these salary schedules be considered independently of the teachers' salary schedule and that no attempt be made to establish ratios between these classes of personnel and teachers.

"In support of the foregoing position the consultants hold that the nature of teaching and administrative service is fundamentally different, requiring different skills and competencies. An important consideration is the element of responsibility inherent within administration and supervision involving policy formulation, decision making, planning, coordination, organization, execution, evaluation. . . .

"It is assumed . . . that initial assignment to these positions is made on the basis of relevant requirements relating to preparation, experience and personal qualification."

► **What superintendents want to discuss.** Each summer since 1948 (except 1955) I have directed a small conference of superintendents who mostly represent communities of from 10,000 to 40,000 in population. Approximately 25 men attend on the average, coming from eight or 10 states, chiefly in the Middle West and Mountain areas.

Several weeks ahead of time the participants are asked to send in three or four topics for discussion. These are organized under appropriate heads and submitted at the first session as tentative agenda.

It is interesting to see the relative emphasis given to the eight subject areas usually employed. Leaving out 1948, I give below the number of questions for each subject for the five conferences of 1949-53 and the five held during the period 1954-59. These figures are not a perfectly true reflection of relative interest because duplication of questions is avoided in compiling the final list. But the figures are probably a pretty fair indication of what superintendents in middle-size districts think about in these parts.

Category	Number of Topics	
	1949-53	1954-59
1. School finance	20	21
2. Personnel administration	61	53
3. Organization and administration	49	71
4. School plant	41	6
5. Curriculum, instruction, guidance	75	112
6. School-community relations	30	25
7. State and federal relations	6	16
8. Pupil personnel	17	3
	299	307

► **Ways to improve the next school year.** Last July at the latest of the conferences just mentioned, Supt. Wendell Godwin of Topeka, Kan., served as consultant. One day he suggested that we school administrators might well ask ourselves: "How are we going to make next year better than last year?"

With the time for making New Year's resolutions close at hand, I paraphrase here 10 of Supt. Godwin's suggestions. *Let us:*

1. Look upon our schools not as a place where children "get educated" but as a place where they gradually become self-sufficient and ready to learn all their lives.
2. Look upon our schools as a place

School Superintendent:
William J. Woodham, Jr.

Architect:
Frank J. Sindelar
Pensacola, Florida

Engineers:
James A. Evans &
James L. Phillips
Birmingham, Alabama

Electrical Contractor:
Boraco Electric Company
Pensacola, Florida



They chose the best modern time and program system at the \$1,410,000 Escambia High School in Pensacola, Florida.



In Escambia High School . . .

Stromberg's new Electronic Time and Program System supervises time and activities

Dependable "on-time" schedules and smooth-flowing student traffic are assured in this modern school. This performance results from such Stromberg System features as:

- Jeweled Master Clock movement with automatically wound 72-hour spring power reserve.
- Secondary Clocks standard with hourly and 12-hour supervision—correction cycles completed in *only 60 seconds*.
- Program Unit, capable of 1440 signals daily on each circuit, immediately resets following power interruption.
- Central operations panel for control of utilities.
- Seven-channel transmitter—one for clock supervision, six for program signals.
- Installation and maintenance service available throughout U.S.A. and Canada.



A complete catalog—TIME AND SIGNAL EQUIPMENT—prepared especially for Architects and Engineers—is yours for the asking.

Sales and Service Offices throughout the U.S.A.

Stromberg **TIME CORPORATION**
MAIN STREET, THOMASTON, CONNECTICUT



SUBSIDIARY OF GENERAL TIME CORPORATION

A half century of experience building dependable time products.



**Put that in the locker room, sonny.
You can't slide on our floors now that we**

Use a slip-retardant wax containing LUDOX®

(Du Pont's anti-slip ingredient)

You benefit two ways with floor wax containing "Ludox". First, there's the skid resistance "Ludox" adds. Tiny, transparent spheres of "Ludox" exert a snubbing action with every footstep... give sure-footed traction. Second, you get the lasting beauty only a fine wax can give your floors... and it's easy to keep floors beautiful, because scratches and scuffs can be buffed out, without rewaxing.

Floor waxes containing "Ludox", Du Pont's anti-slip ingredient, give your floors the appearance you want, plus added safety underfoot.

Mail coupon below for more information, and a list of suppliers of quality floor waxes containing "Ludox". E. I. du Pont de Nemours & Co. (Inc.), Industrial and Biochemicals Dept., Room N-2533, Wilmington 98, Delaware.

LUDOX®
COLLOIDAL SILICA

DU PONT

REG. U. S. PAT. OFF.
BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

MAIL THIS COUPON TODAY

E. I. du Pont de Nemours & Co. (Inc.)
Industrial and Biochemicals Dept.
Room N-2533NS, Wilmington 98, Delaware

Please send me the free booklet describing the advantages of using floor wax containing "Ludox" and a list of suppliers of these quality waxes.

Name _____
Firm _____ Title _____
Address _____
City _____ State _____



where boys and girls learn how to do some critical thinking.

3. Help pupils become concerned most of all with learning something important and not be concerned so much with marks and honor rolls. Let teachers ask: "Are these pupils substantially different from what they were when I started with them?"

4. Recognize that vocational education is changing to technical instruction at the subcollegiate level.

5. Not set pupils up against impossible standards.

6. Emphasize reading in the high school, especially *pondering* what is read, not merely the act of reading.

7. Seek the establishment of educational clinics.

8. Do a better job of identifying the able and ambitious pupils, and then treat them as well as we treat the retarded: specially qualified teachers, special equipment, favorable class size.

9. Work for a five-year program of teacher preparation, embracing four years of the liberal arts and one year of professional study.

10. Do a better job of getting appropriate salaries and appropriate assignments for expert teachers to do expert work.

► **My Apologies.** My October comment on the Gary, Ind., school system is in error. The survey report of the Public Administration Service recommended that the superintendent be the chief officer of Gary schools and that other officials, such as the director of finance and assistant superintendent, be responsible to him.

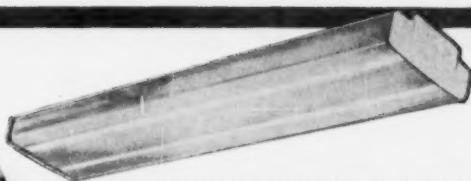
► **Handbook on healthful school living conditions.** The Kansas State Board of Health has published a 52 page pocket size booklet, "The School Inspector's Vade Mecum."

Intended as a guide for county health officers (who are physicians), the Vade Mecum sets forth, in not too specific fashion, standards on 12 major environmental conditions and calls for grading a school on each one as excellent, satisfactory, substandard but acceptable for temporary use, or substandard and not acceptable.

The 12 items covered are: (1) site, (2) building, (3) water, (4) waste disposal, (5) heating and ventilation, (6) lighting, (7) classrooms, (8) washrooms and sanitary facilities, (9) playgrounds, (10) food handling and sanitation, (11) safety, and (12) health of school personnel.

Simple Formula . . . for Efficient, Thrifty Classroom Lighting
Specify

HOLOPHANE Luminaires



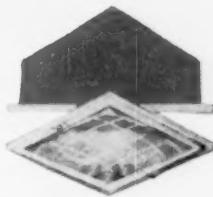
REALITE* PRISMALUME* CONTROLENS*

Provides high level fluorescent illumination with best visual comfort. PRISMALUME (acrylic plastic) enclosure; ultra-thin, light in weight, shatter resistant, free from discoloration. Annual cost-per-footcandle is low—warranting wide use of this quality luminaire.



PARADOME*

Very efficient, totally enclosed semi-direct luminaire for incandescent lighting. Prismatic control achieves highest utilization of light with greatest seeing comfort. In terms of light delivered —its cost is lower than any comparable luminaire.



LO-BRITE* CONCAVE CONTROLENS*

Pioneer development in incandescent lighting. By employing a prismatic reflector and CONTROLENS, this recessed luminaire directs maximum light on the work areas. Exceptionally low brightness; dirt-resistant; low depreciation; easy servicing.



We invite your inquiry for engineering analyses proving that Holophane luminaires offer the answer to taxpayers' demands for lighting economy.

HOLOPHANE COMPANY, INC.

Lighting Authorities Since 1898

342 Madison Ave., New York 17, N.Y.
THE HOLOPHANE CO., LTD., 418 KIPLING AVE. SO., TORONTO 18, ONTARIO

®



*"We feed 'em fast... thanks to **GAS**"*

Harley Cutlip, Director, Jackson's Mill, W. Va.

This is Jackson's Mill — "West Virginia's center for leadership training." Owned and operated by the Agricultural Extension Division of West Virginia University, it's used year 'round as the State 4-H camp, and serves as a 2-week fall training camp for football players.

"Good food, and plenty of it in a hurry — that's what's needed to feed our hungry football players and future farmers," says Mr. Cutlip. "That's why you'll find gas equipment in our kitchen. Gas gives us the top

speed and top performance we need."

The gas-fired equipment at Jackson's Mill includes Magic Chef and Blodgett deck ovens, a bank of Magic Chef ranges, a Keating Fryer, Blickman Tri-Saver coffee urns, and several Ruud water heaters.

Planning to build, remodel or expand your kitchen? Be sure to call your gas company's commercial specialist first. He'll show you how you too can get the fast, economical cooking that only modern Gas equipment can deliver. *American Gas Association.*



In addition to their unusual beauty, gas lamps have been found to project light further without glare.



THE NATIONAL DEFENSE EDUCATION ACT

THE FIRST 10 MONTHS OF PROGRESS: SEPTEMBER 2, 1958 TO JULY 1, 1959

THIRD MILESTONE... When, in 1787, the Northwest Ordinance set aside public lands for elementary and secondary schools, the first great milestone in Federal aid to education was reached. The second was passed in 1862 when President Abraham Lincoln signed the Morrill Act providing land grants for state universities. The third milestone came into view last year shortly after the first Sputnik whirled into orbit and it became instantly and dramatically clear that a challenge had been issued to American education. The Congress answered that challenge with the National Defense Education Act whereby the Federal government made available to the states monies for educational materials and equipment, student loans, fellowships, science and language programs, guidance, counseling, and research. In many cases, these monies were an outright grant. In all cases, although the money came from the Federal government, the educational programs were to be wholly controlled by the states, the communities and institutions within them, thus carrying out and strengthening the traditional American concept of state and local control of education.

ARTHUR S. FLEMMING, *Secretary of Health, Education, and Welfare*



"THE NATIONAL DEFENSE EDUCATION ACT...continues a historic partnership which has demonstrated its value to the American people over many years in the past—a partnership in which the Federal Government assists States, communities, and private institutions to pioneer in new educational programs and to strengthen others that have proved their worth.

"This legislation will, I believe, help to bring about a significant increase in State, local, and private support for the education of our young people. It offers a splendid opportunity for teachers, school administrators, and public officials to enlarge their services to our free society."

REPORT ON A PARTNERSHIP...

On this map, each state and territory bears a figure representing the total sum of NDEA aid received by each state or territory during the first fiscal year of the Act's existence. The grand total of more than \$91,000,000 represents merely the first stage in a four-year program under which more than one billion dollars are authorized for schooling from kindergarten to graduate school.

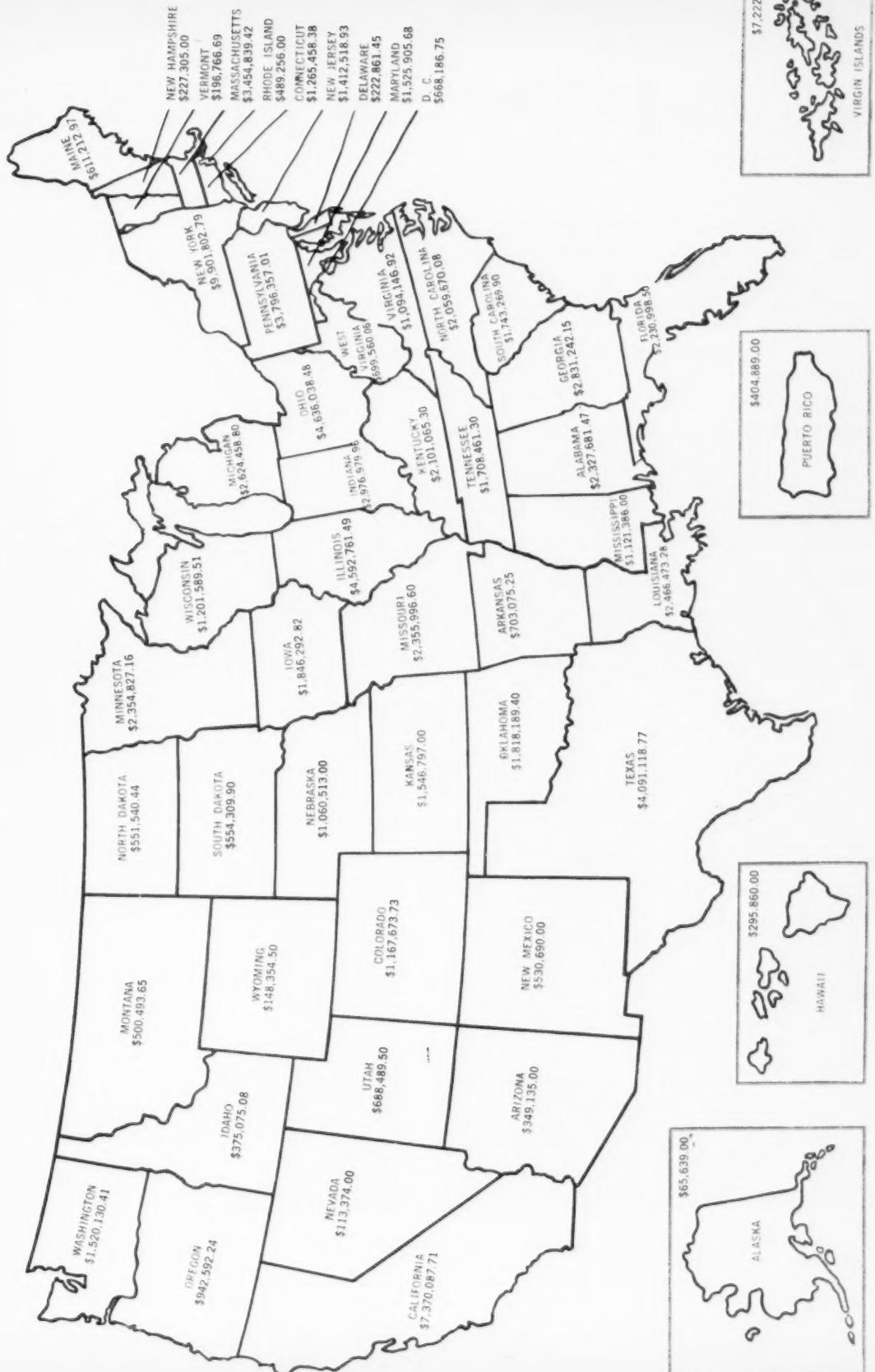
LAWRENCE G. DERTHICK, *United States Commissioner of Education*

"We will do the Act justice only if we see it as a mighty complex, in which each part reinforces the other, and all parts join to strengthen education.

"We can see the Act as a juncture of forces bearing down on such problems as the losses in talented students and the shortage of teachers. We can see it as a reaffirmation of our traditional faith that hard work and ability will have their reward.

"We can see it as a source of technicians in an age of automation; as a source of ambassadors in an age of world responsibility; as a way of making the average citizen at home in an age of science. We can see it as a boon to our colleges a decade hence. If we see it thus, each step we take will move us surely onward toward our goal: Defense of our Nation against every enemy of body, mind, or spirit that time may bring."





This message appears as a public service by THE GROLIER SOCIETY, INC.

International Headquarters: 575 Lexington Avenue, New York 22, N. Y.

Why North Hagerstown's new "TV High School"

Complete with supplementary closed-circuit TV educational system, North Hagerstown, Maryland's new "TV High School" embodies the latest educational and design concepts. Like McLeod & Ferrara, architects, you'll find that the use of Truscon VISION-VENT® Window Walls is an ideal way to convert one such concept—that of exterior walls which provide added light, beauty, and economy—into a striking reality.

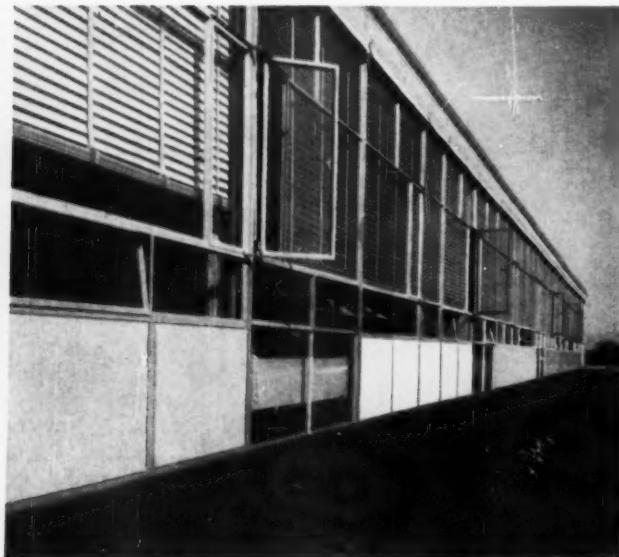
MORE LIGHT, BETTER VENTILATION—Use of VISION-VENT Window Walls assures higher natural light factor, good fire-resistance and insulating value, better ventilation. When required, panels can be provided with louvers for heating or ventilation systems.

PLEASING LINES, COLORS—Select practically any type of window—double-hung,

architectural projected, intermediate projected, and many others. Trim, modern appearance. Choice of high-gloss panel colors for single- or multi-colored effects. Almost any desired arrangement of insulated panels; fixed or operating lights; side-hinged, inward or outward projecting ventilators. Choose either steel or aluminum.

IMMEDIATE AND LONG-TERM ECONOMY—Applied-skin type construction gives up to 5% more usable floor space, reduces weight on frame and foundation, permits fast erection even in foul weather.

For all the advantages of modern curtain wall construction—combined with the *exclusive* feature of ventilated, insulated panels integrated with heavy-intermediate steel windows—investigate VISION-VENT. Send coupon for full information without obligation.

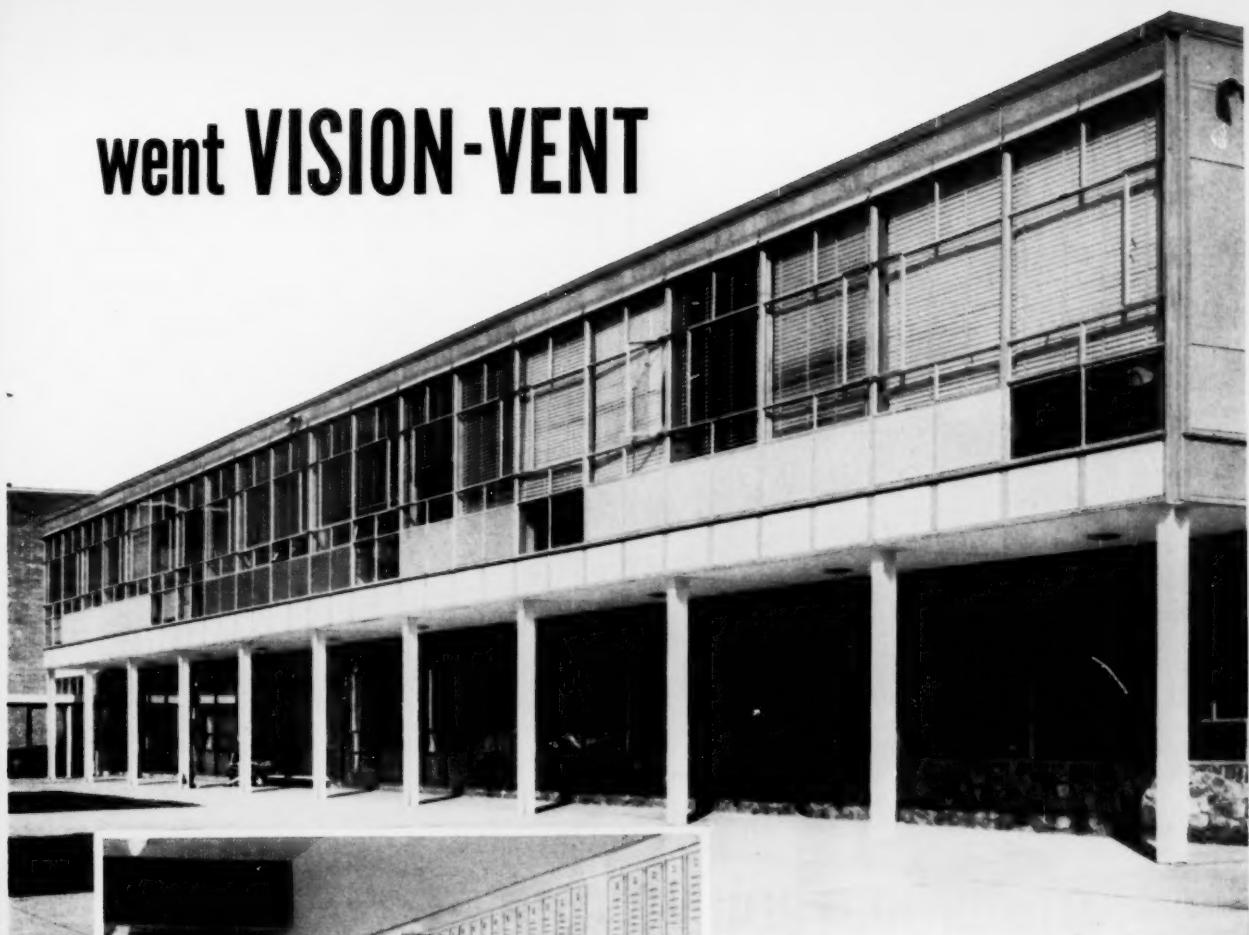


Cost of VISION-VENT Window Wall construction utilized by McLeod & Ferrara, Architects, compared favorably with any other type of construction considered. No other type, however, offered the combination of added light, beauty, durability, and complete flexibility of design.



Truscon "O-T" Open Truss Steel Joists® are employed exclusively in North Hagerstown's new high school. Joists are covered by acoustical ceilings in all but a few laboratories—such as the electronics lab seen above—where possible increases or changes in electrical systems will require complete accessibility. Send coupon for "O-T" Steel Joist details.

went VISION-VENT



Architects: McLeod & Ferrara, Washington, D.C.



These high-quality Republic Steel Lockers will be enjoyed by generations of North Hagerstown high school students. Designed and built by Republic's Berger Division to weather youthful exuberance. Bonderized to take and keep a finer enameled finish. New, improved handle. All locker sizes and styles. Complete planning, engineering, and installation service. Send coupon for complete information.

REPUBLIC STEEL



*World's Widest Range
of Standard Steels and Steel Products*

Vol. 64, No. 6, December 1959

REPUBLIC STEEL CORPORATION
DEPT. NS-7924-A
1441 REPUBLIC BUILDING • CLEVELAND 1, OHIO

Please send full information on:

VISION-VENT Window Walls "O-T" Steel Joists
 Republic Steel Lockers

Name _____ Title _____

Company _____

Address _____

City _____ Zone _____ State _____

For additional information, use postcard facing Cover 3.

15



S. AUERBACH A.I.A.

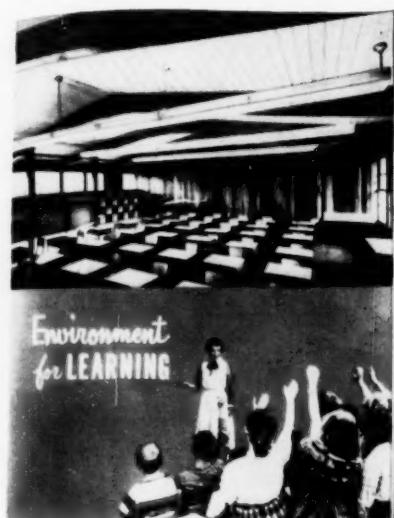
Bring out the best in the school . . .

the best in the scholar . . . with **WOOD**

Young people spend the most impressionable hours of every day at school. Here they absorb much of their respect for beauty, good taste and fair play—along with a healthy diet of human knowledge. Certainly no other surroundings are more naturally beautiful than wood, more naturally conducive to unhampered learning and effective teaching.

Used liberally in paneling, cabinetwork, flooring—or more fundamentally in structural beams, posts and exterior siding—wood construction assures a community that its tax dollars will deliver more school for every dollar invested . . . more schooling for every student.

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
Wood Information Center, 1319 18th St., N.W., Washington 6, D.C.



This informative new booklet, "Environment for Learning," contains comprehensive data on the use of wood in schools. For your free copy (or copies) write to NLMA at the address shown.

The NATION'S SCHOOLS



From his desk, Dr. J. C. Witter, Superintendent of Schools, Caney, Kansas, is in instant two-way conversation with teachers.



Teacher saves steps; she answers calls from any point in room. Call from principal is announced by bright red privacy light. Teacher can also call principal.



Portable amplifier and loudspeakers provide P.A. facilities for the auditorium, gym and athletic field . . . including announcements to spectators.

For schools with low-budget problems

Executone provides complete communications, classroom privacy

Caney, Kansas, schools get all the many features of expensive console sound systems with simplified, low-cost Executone intercom. This inexpensive, all-purpose system saves time and energy for teachers and principal, increases administrative efficiency. Schoolwide announcements can be made from the principal's desk. School programs, recorded music, speeches, special events, emergency dismissals, every form of sound system transmission can reach all school areas, as well as individual classrooms.

You get these plus advantages with Executone:

- **Lower Cost**—Expensive console features now possible with new simplified wiring circuit.
- **Easy to Operate**—No complicated, confusing control panels.
- **Easily Installed** in existing schools. In new construction, additional savings possible on wiring.
- **Small Initial Investment**—Starting with intercom, schools can add sound system features as required.
- **Space Saving**—Principal's compact control station needs only small fraction of space required by console.

More time for teaching! Teachers like the system. It saves them steps, time and energy . . . so students benefit, too! Find out what Caney schools have learned . . . how Executone School Intercom can improve *your* school administration. Just send coupon for more information.

Executone

SCHOOL COMMUNICATION SYSTEMS

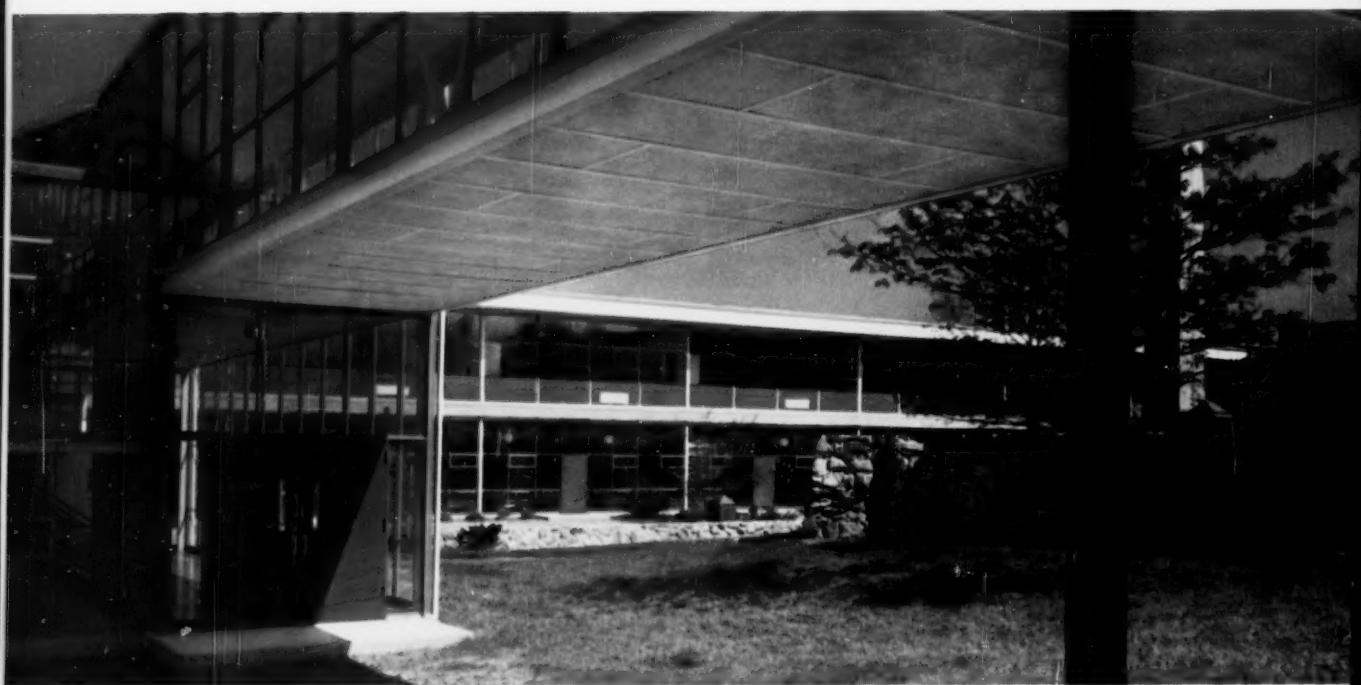
Manufacturers of School-to-Home telephone equipment for shut-ins

EXECUTONE, INC., Dept. G-6
415 Lexington Ave., New York 17, N. Y.
Without obligation please send:
 Complete details on Caney Schools' communication set-up
 Other free descriptive literature.
 Name of local representative.

Name _____
School _____
Address _____
City _____ Zone _____ State _____

In Canada—331 Bartlett Ave., Toronto

They don't build schools



Dracut High School, Dracut, Mass. Architect: Hugh Stubbins & Associates, Cambridge, Mass. General Contractor: Vara Construction Inc., Boston, Mass.
Panel Fabricator: Seaporcel Metals, Inc., Boston, Mass. Window Wall Contractor: Quincy Ornamental Iron Works, Boston, Mass.



like they used to !



In Dracut, Massachusetts, you'll see this striking example of modern school construction. This beautiful, low-cost high school is a steel window-wall building.

This is economical construction. The wall panels and windows are framed in steel mullions that form complete floor-to-ceiling units. These units are *factory assembled* and delivered ready to be set in place. Labor costs and construction time are cut to a minimum.

The panels consist of a porcelain-enamelled steel sheet exterior, insulation, and zinc coated galvanized steel sheet backing. The panels are only one inch thick so there is more floor space inside the building. And because they are exceptionally strong and light, the builder was able to use a lighter, less expensive foundation.

This type of construction practically eliminates exterior maintenance. These walls will never have to be pointed or refinished. The porcelain-enamelled steel has a hard, glass-like surface that will always look bright and new with just an occasional wash.

This modern, low-cost way to build deserves your special attention. For more information about steel window walls, write to United States Steel, 525 William Penn Place, Pittsburgh 30, Penna.

USS and Vitrenamel are registered trademarks

USS STEELS FOR ARCHITECTURAL DESIGN
USS Stainless Steel . . . USS Vitrenamel
USS Structural Steel . . . USS Window Sections

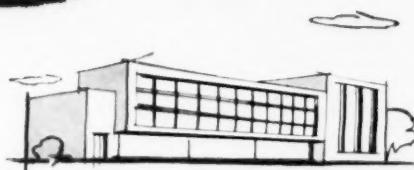


United States Steel

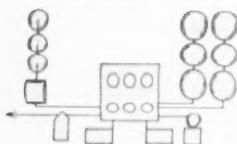


EDWARDS

...has the Right Fire Alarm System for your School



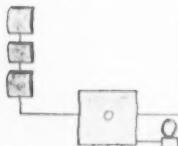
TYPE AMVAD



Completely automatic system combined with manual stations, gives 24-hour protection. Operates regardless of power failures. Sounds evacuation signal, indicates location of fire at a central point, may be used to signal municipal fire headquarters automatically. Fully supervised for complete safety.

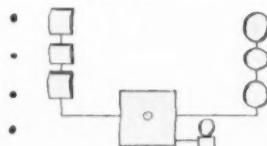
- Not just one, but an entire range of fire alarm systems to meet the requirements of every school building. Each system is made entirely of "matched design" components produced exclusively by Edwards. This is your assurance that every part of the system is specifically designed to perform a certain function...designed so that it will give years of dependable, maintenance-free service. And you'll like the appearance of Edwards Fire Alarm stations too. They are designed to blend into the decor of modern schools.
- For more than 80 years Edwards has been the leader in the design and manufacture of signaling equipment. This long experience guarantees simplicity and reliability in every product. To aid you in selecting the correct system for every school building, Edwards Technical Representatives in 53 key cities in the U. S. and Canada are ready to help you get the proper fire alarm system.

TYPE CCVA



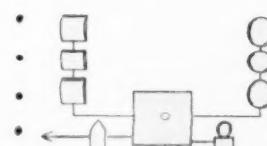
Simplest supervised system sounds an evacuation alarm without indicating location. Closed circuit, full supervision assures instant warning whenever system becomes inoperative due to open circuits, grounds or other defects. Ideal for the smaller one story school.

TYPE SSAMR



Common Coded: sounds 4 or 6 rounds of common code such as 4-4, a distinctive alarm signal. For buildings where automatic location is unnecessary but a distinctive common code signal is desired. Full supervision with trouble bell guarantees continuous protection.

TYPE SSAM



City-connected system sounds a coded signal within the building and also at the municipal fire headquarters, entirely automatically. Recommended particularly for large schools and institutions.

TYPE SSA



For large buildings: coded signal throughout the premises tells where alarm was sounded, locating the fire while it gives the evacuation signal. Fully-supervised system sounds a special trouble bell if there is any fault in the system.

To find out how Edwards fire alarm systems are tailored to your requirements, see your local Edwards Technical Representative or write

Dept. NS12, Edwards Company, Inc.,
Norwalk, Connecticut. (In Canada: Edwards
of Canada, Ltd., Owen Sound, Ontario.)

Specialists in Signaling Since 1872

EDWARDS

DESIGN • DEVELOPMENT • MANUFACTURE

new JANITROL

**school heating - ventilating - cooling system
with draft-free perimeter distribution**



- new schools
- for • add-on school rooms
- modernization

JANITROL HEATING AND AIR CONDITIONING DIVISION
SURFACE COMBUSTION CORP., COLUMBUS 16, OHIO

NOW... any schoolroom can have modern comfort at modest cost!

The new Janitrol school comfort system is a self-contained, individual-room heating and ventilating system (with optional summer cooling) that features perimeter-type, draft-free air distribution, recognized as the best way to comfort condition a schoolroom. The system may be installed very economically (saving as much as 60% over large central systems), and extra savings will continue, due to the low operating and maintenance costs.

The standard system consists of (1) a floor-to-ceiling metal cabinet which encloses the gas-fired heating and

ventilating unit and (2) wall duct sections that occupy unused space and provide efficient, perimeter distribution of the conditioned air. If extra space-saving storage is desired, matching shelves may be included with the wall ducts initially, or added at any future time.

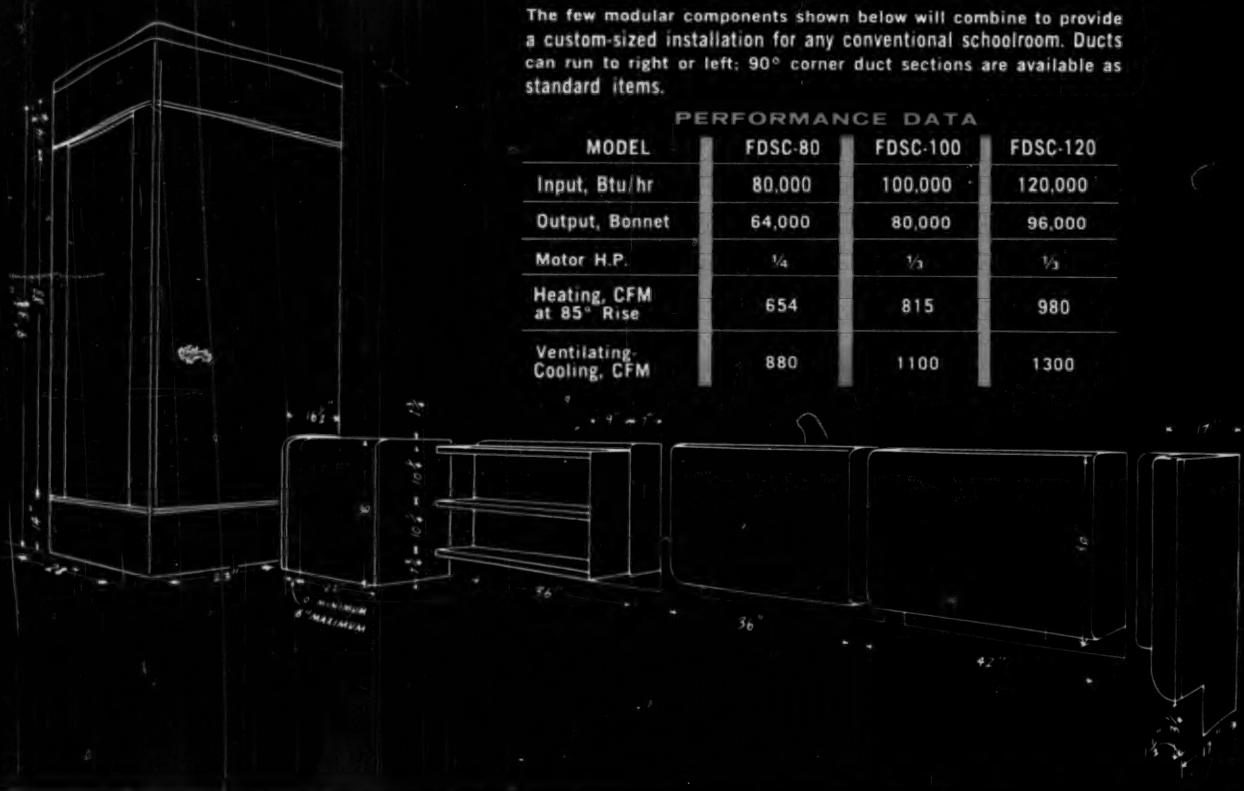
The modular sections of the system permit unusual flexibility in installation for new schools, additions to existing structures or for modernization of older schoolrooms. Installation may be made after all construction work is completed, if necessary.

dimensions - capacities

The few modular components shown below will combine to provide a custom-sized installation for any conventional schoolroom. Ducts can run to right or left; 90° corner duct sections are available as standard items.

PERFORMANCE DATA

MODEL	FDSC-80	FDSC-100	FDSC-120
Input, Btu/hr	80,000	100,000	120,000
Output, Bonnet	64,000	80,000	96,000
Motor H.P.	1/4	1/3	1/3
Heating, CFM at 85° Rise	654	815	980
Ventilating-Cooling, CFM	880	1100	1300





YOUR local metal fabricators build these aluminum railings from Blumcraft materials. Competitive bidding is thus provided for public and private work. Blumcraft general catalogue M-60, containing the Deluxe line and also low-cost Tube-Line, is available to Architects; or consult Sweets file 6e/Blu.

TUBE-LINE®...LOW COST RAILINGS

 **Blumcraft®** OF PITTSBURGH
460 MELWOOD STREET PGH. 13, PA. • PERMANENT DISPLAY 101 PARK AVE., N.Y.

THE ABC OF BENTSON QUALITY

Built to outlast teen-age energy and to pass school board examinations! Bentson quality steel furniture for schools meets tomorrow's education needs at today's tight budgets.



A B C

Advanced Design! Wide variations in desk pedestals, top edges and back panels — plus interchangeable drawers. Bentson products are styled for progressive schools!

Built-in Quality! Top grade materials fully reinforced and featuring exclusive "Perma-Mush" sound deadening treatment . . . the name of Bentson has meant quality construction for nearly 50 years!

Colorfull Twelve beautiful pastel enamels in solid or two-tone effects, and two handsome grained finishes suit Bentson steel desks, files, tables, and companion units to any over-all decorative plan.

Compare! Check the Yellow Pages — then visit your Bentson dealer and learn how the ABC's of Bentson furniture give you more in every way.

Get a colorful catalog from your Bentson Dealer or write to—



BENTSON MFG. CO.
663 HIGHLAND AVENUE
AURORA, ILLINOIS

CONNOR

forest products since 1872

"LAYTITE" maple birch oak FLOORING

has been first choice for gyms, play rooms and class rooms

"CONTINUOUS STRIP", Blocks, Regular Strips and Slats

School and Gym Floors Our Specialty

MFMA grades and trade marked

See Sweet's file specs # 13J Co

CONNOR LUMBER & LAND CO.

P.O. BOX 810-A, WAUSAU, WIS.

Phone No. 2-2091



califone
LANGUAGE LABORATORIES

Go To School!

Califone's complete line of Language Laboratory components has been developed after extensive research into the requirements of Schools and Universities at all grade levels.

Recorders, playbacks, phonographs, consoles, booths, etc. — all manufactured by Califone — offer to the field of language education integrated equipment that is the most reliable, easiest to service and simplest to operate.

Contact your Califone Language Laboratory Dealer. He will help you determine your exact requirements.

Write today for complete descriptive literature.

califone CORPORATION NS12
1020 NORTH LA BREA AVENUE
HOLLYWOOD 38, CALIFORNIA



**known
fact: any bucket of cleaner
starts losing its power as
soon as you put a dirty mop
or sponge in it! but now... TURN PAGE**

while
other
cleaners
fade
and fade
and fade
and fade
and fade

JOHNSON'S
FORWARDTM
CLEANER



Announcing! the cleaner that gives you a full bucket's worth of cleaning power every time!

Johnson's FORWARD...never suffers power fade-out. Even when it's loaded with dirt you know its cleaning action isn't giving out!

Now, try FORWARD and see what it means to get all the cleaning power you pay for! Call your local Johnson's Wax Distributor...or write
S. C. Johnson & Son, Inc.,
Service Products Division
NS12, Racine, Wisconsin.

New Johnson's Forward
a product of **JOHNSON'S**

service products division 

See the major part PC Glass Block sash replacement played in the remodeling of St. John's School. In addition, all ceilings were lowered and acoustical ceilings were installed. All rooms were painted. All floors were sanded and refinished and locker rooms were completely renovated. The result: truly a new school—on an old school budget.

PC GLASS BLOCKS for remodeling

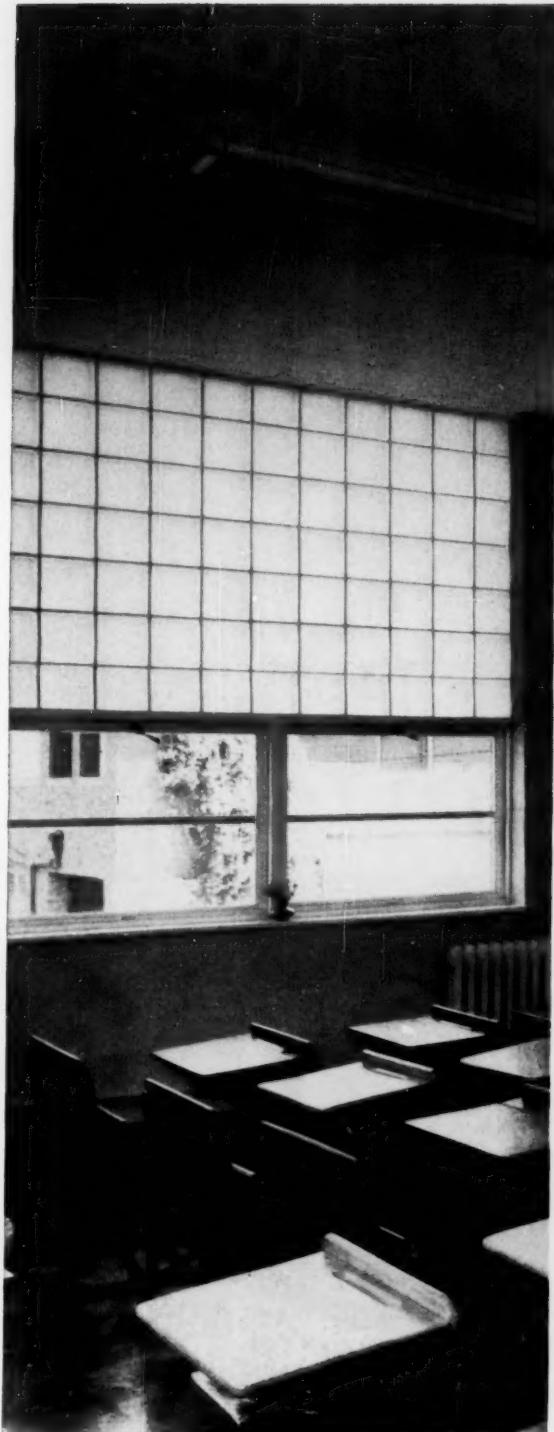
**A new school on an old
school budget for St. John's
parish, Defiance, Ohio**

Build a new school or remodel the old? PC Glass Blocks helped make remodeling the practical solution for St. John's parish, Defiance, Ohio. According to the Rt. Reverend Msgr. John J. Vogel, remodeling saved the parish over \$250,000 in construction costs, cut future fuel bills by over 20% . . . and allowed all work to be finished during summer vacation.

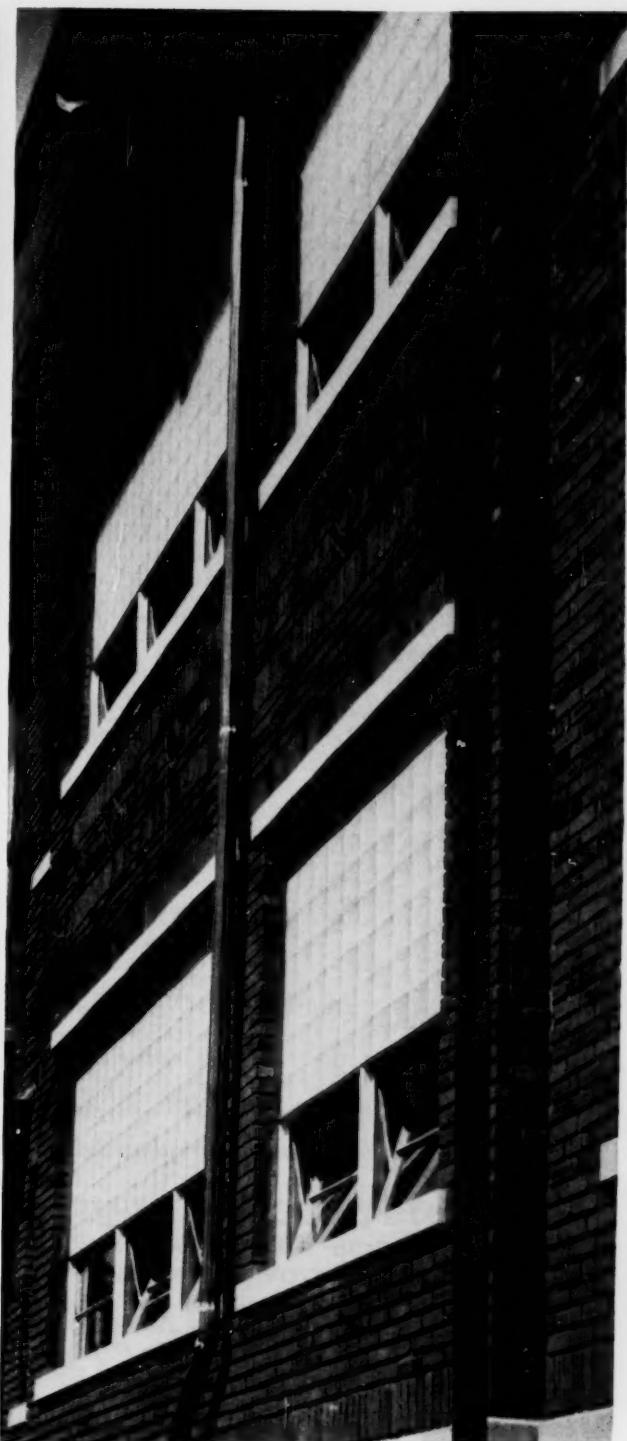
115 battered double-hung windows were replaced with bright sparkling panels of light-directing PC Glass Blocks. Maintenance engineer Wayne Vogelsong considers this the most important change made. He says the old rotting sash was costly to maintain and allowed cold winds, dust and noise to infiltrate the classrooms. In winter, though the building's furnace was fired up to capacity, the children frequently had to wear jackets and galoshes in the classrooms. And poor daylighting kept back corners of many rooms in deep shadow.

These problems have disappeared thanks to the PC Glass Block panels. There's nothing to rust or rot, nothing to paint. Their insulation value (equal to 12" masonry) drastically reduces summer heat gain and winter heat loss. In fact, fuel bills dropped over 20% in the first year the new sash was in place. And now every corner of every classroom is bathed in soft, glare-free daylight thanks to the light directing action of the blocks.

When you're faced with the problem of remodeling an old school—or building a new one—consider the many valuable benefits of PC Glass Blocks . . . functional blocks, the new 4 x 12 blocks and Color Glass Blocks with 12 brilliant ceramic face hues now available on architect's specification. Get our latest catalog for complete product details. Write Pittsburgh Corning Corporation, Dept. AK-129, One Gateway Center, Pittsburgh 22, Pa. In Canada: 3333 Cavendish Blvd., Montreal, Que.



P I T T S B U R G H



PC
C O R N I N G



Brilliant idea! To keep interest high teach with a GRAFLEX-SVE projector

In the midst of the most effective AV programs you'll find Grafex-SVE Equipment. Brilliant projection of your teaching materials, even in semi-daylight, makes teaching easier and speeds the learning process.



SCHOOL MASTER® FILMSTRIP AND SLIDE PROJECTOR

Brilliant projected screen images make the School Master the perfect projector for today's brighter classrooms. Simple to operate—any pupil can project either filmstrips or 2" x 2" slides. Easy to clean. Exclusive built-in carrying handle—easy to carry. 500 watt and 750 watt manual or remote control models. Exclusive accessory rewind take-up allows filmstrips to be rewound into storage container automatically.

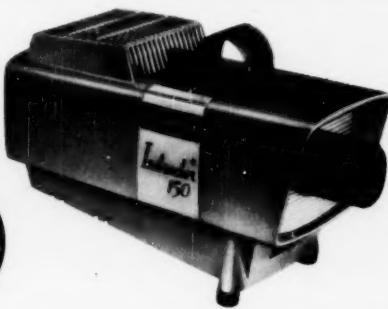
School Masters (Model 750RC shown with accessory semi-automatic slide changer and rewind take-up) are priced from \$84.50.

NEW! INSTRUCTOR® 150

COMPACT FILMSTRIP PROJECTOR WITH EXCLUSIVE PUSH-BUTTON FILM ADVANCE

For smaller audiences. Most economical filmstrip projector on the market. Exclusive push-button film advance mechanism is the easiest ever devised—any pupil can operate it. Latest design 150-watt lamp has built-in reflector that assures a clear, detailed screen image. Lamp replacement is quick and easy. Three inch f/3.5 lens focuses from 19 inches. Lightweight, easy to carry.

\$39.95



Prices are subject to change without notice.

For additional information on the projectors shown, see your Grafex AV dealer. Or, write Dept. NST29, Grafex, Inc., Rochester 3, N. Y. A subsidiary of General Precision Equipment Corporation.

GRAFLEX®

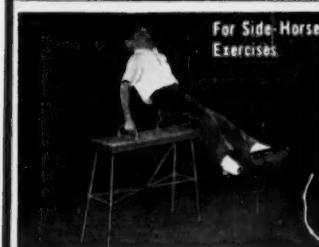
A
GENERAL
PRECISION
COMPANY

MEDART'S Phys-Educator

Phys-Exerciser

PORTABLE • VERSATILE
ECONOMICAL

Four-In-One Apparatus costs less than any single-purpose item. Converts in seconds to side horses, parallel bars or balance beam. Adjustable instantly without tools, 18" to 30" high. Tubular steel construction. Stores compactly. Stand tops padded, green vinyl covered; metal parts, coral color.



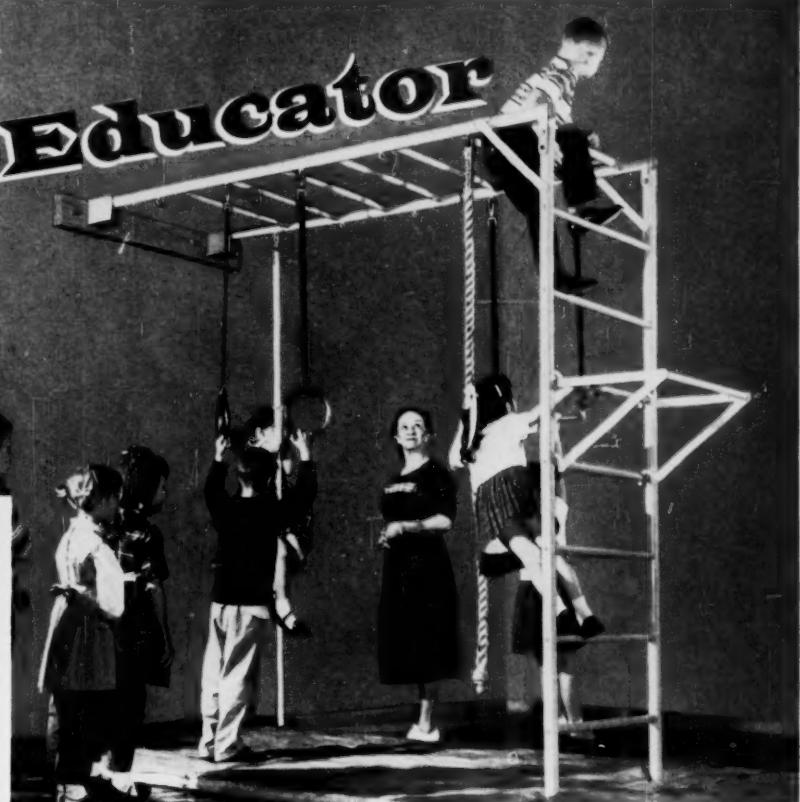
For Side-Horse Exercises



For Parallel Bar Exercises



For Balance Beam Exercises



NEW physical education equipment designed especially for elementary schools

MEDART'S PHYS-EDUCATOR provides virtually all popular exercise equipment in one compact, economical unit—trapeze, rings, climbing rope and pole, and chinning bar *plus* vertical and horizontal ladders.

Folds instantly, compactly, against wall to form stall bars. Open, unit is 7'9" high, 8'0" long, 34" wide. Closed, unit extends 8" from wall.

Rugged steel tube construction, rigidly reinforced. Durably finished in combination of bright, beautiful colors.

Installs easily in gyms, playrooms, corridors—wherever space is available. Exercise Book included. Suggests a hundred practical exercises for elementary age children.

MEDART



FRED MEDART PRODUCTS, INC. • 3532 DEKALB ST. • ST. LOUIS 18, MO.

Send information on: Phys-Educator Phys-Exerciser

Name _____

School _____

Address _____

City _____ Zone _____ State _____

Have Representative call.

How air conditioning can pay for itself in a new school building

- 1. An air conditioned building can cost less to build**
- 2. Maintenance costs are reduced**
- 3. Teaching efficiency increases**

RECENT STUDIES concerning new school buildings bring significant facts to light.

You can build a modern, fully air conditioned school building *for less money* than it costs to build a conventional building, because it can be more compact. If the building is designed for air conditioning, the savings can more than *pay the cost* of the air conditioning equipment.

Moreover, the *operation* of the air conditioning *pays for itself*—due to greatly reduced cleaning, painting and decorating bills.

Most important, there is an increase in faculty and student efficiency. This means better teaching, better learning. Studies show that because of body heat and the sun's rays it takes outside air below 60 degrees to cool a school building without air conditioning.

When outside air is above 60 degrees, classrooms are sure to be uncomfortable. Above are some U.S. Government figures, showing

CITY	% classroom time, during the regular school year, that outdoor temperature is above 60 degrees	
LOS ANGELES.....	86%	
DALLAS.....	62%	
WASHINGTON, D. C.	44%	
ST. LOUIS.....	43%	
CLEVELAND.....	34%	
CHICAGO.....	32%	
MINNEAPOLIS.....	25%	

the percentage of school-year classroom hours, in various cities, when the temperature is above sixty degrees.

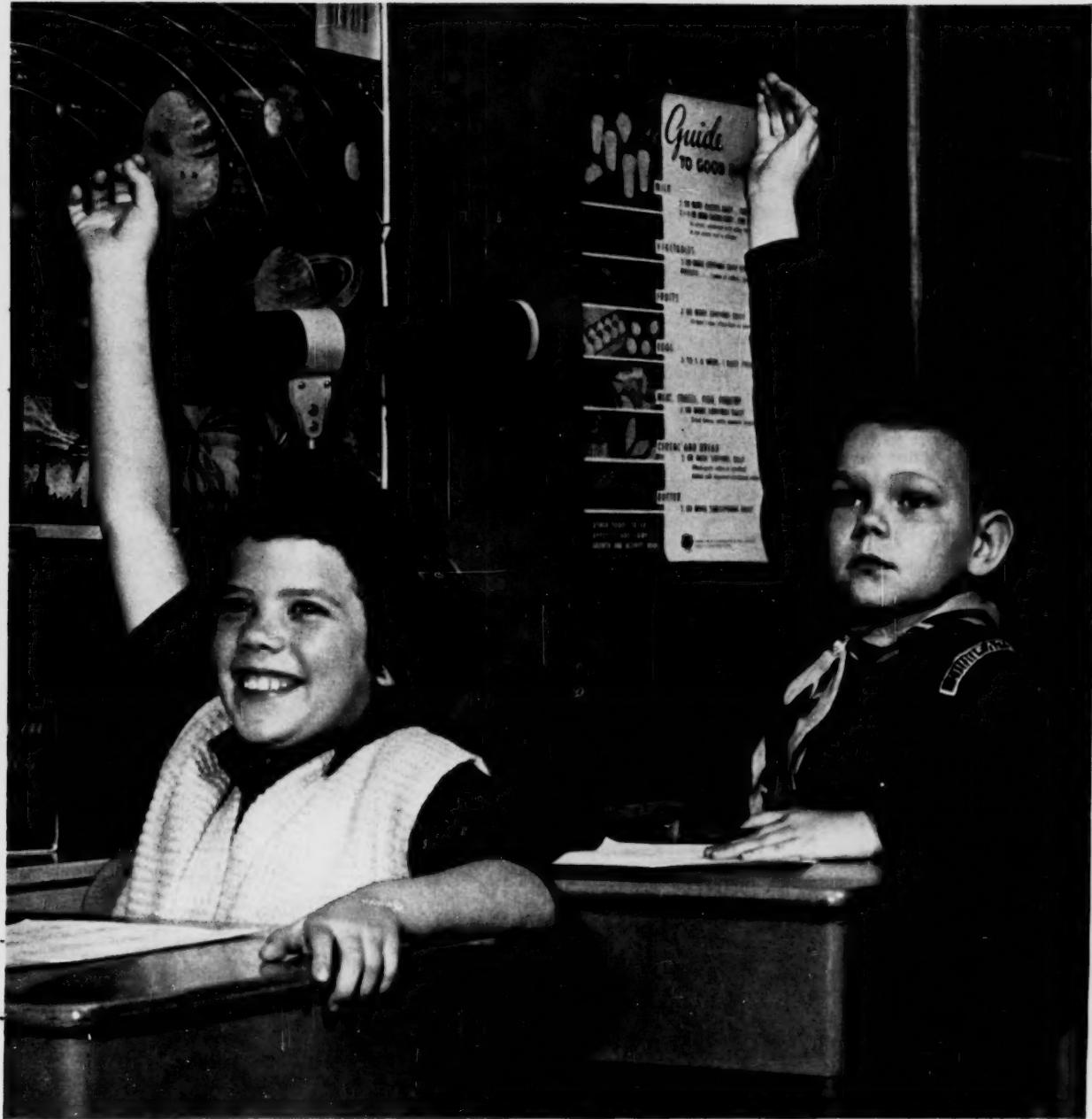
These are the times when air conditioning is *vital*, if adequate efficiency in teaching and learning is to be maintained. Of course, these figures do *not* include the important summertime. With an air conditioned school, summer study is more popular. The school can be used in the hottest weather, day and night. It can also be utilized for recreational activities that would be impossible without air conditioning.

The other benefits of air conditioning—in terms of increased comfort and cleanliness—are immeasurable. Today, more than ever before, it is important to examine the economies of air conditioning *before* you build. See your architect or consulting engineer. Or write: Minneapolis-Honeywell, Department NS-12-106, Minneapolis 8, Minnesota.

Honeywell



First in Control



Classroom comfort means better learning, better teaching. This is the attractive Honeywell Pneumatic Round Thermostat. It is used for both heating and air conditioning, and is the most accurate pneumatic thermostat available. With one in every classroom or recreation area, the teacher can adjust the temperature to fit the specific activity. Remember, only a thermostat *on the wall* can sense the temperature the way an occupant does.

Radiant Ceiling News

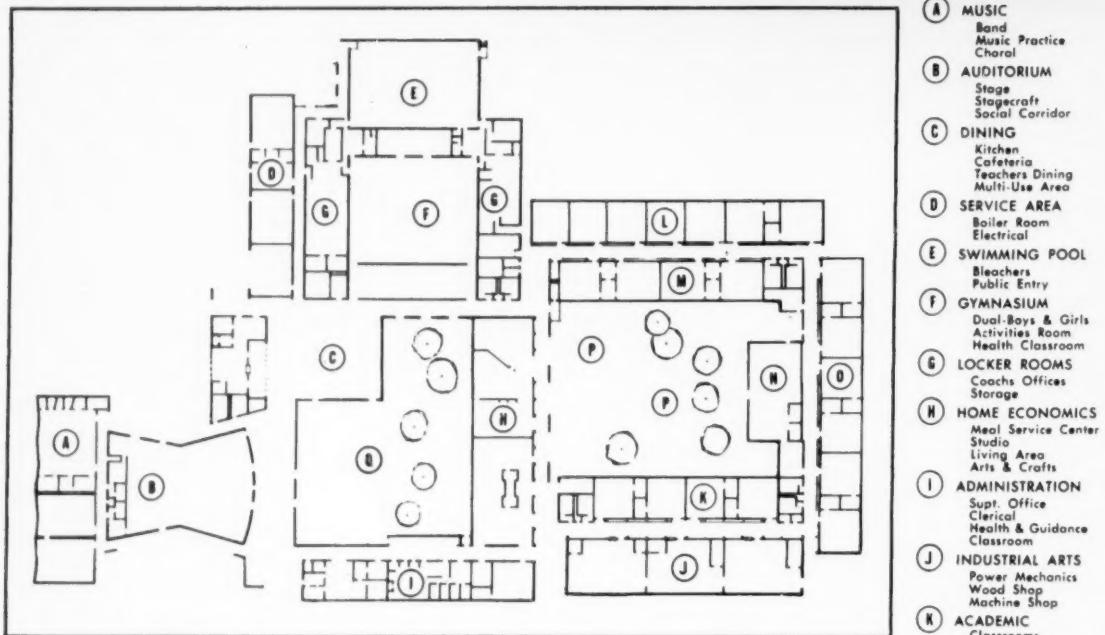
With Burgess-Manning Ceilings — Your Building Is Better — Your Building Budget No Bigger

In Michigan, Dearborn's Strikingly Modern William Stout Junior High School

Designed by Architects Bennett & Straight Inc., Dearborn, Mich.—has built-in thermal comfort with Burgess-Manning Radiant Acoustical Ceilings.

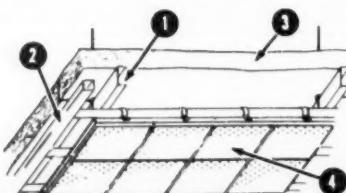
The beauty, efficiency and completeness of this new educational unit is told graphically by the exterior view and the floor plan.

Providing a full complement of facilities for well rounded Jr. High activities, this building is being erected for the square foot price of an "average" school building—including the comfort and operating economy of Burgess-Manning Radiant Acoustical Ceilings.



The simple construction of the Burgess-Manning Radiant Acoustical Ceiling is shown to the right.

- (1) Suspension Grid
- (2) Hot or chilled water circulation coil.
- (3) Sound absorbing blanket.
- (4) Perforated aluminum ceiling panels clipped directly to coil for efficient heat transfer.



Write for descriptive
Burgess-Manning Catalog
No. 138-2N



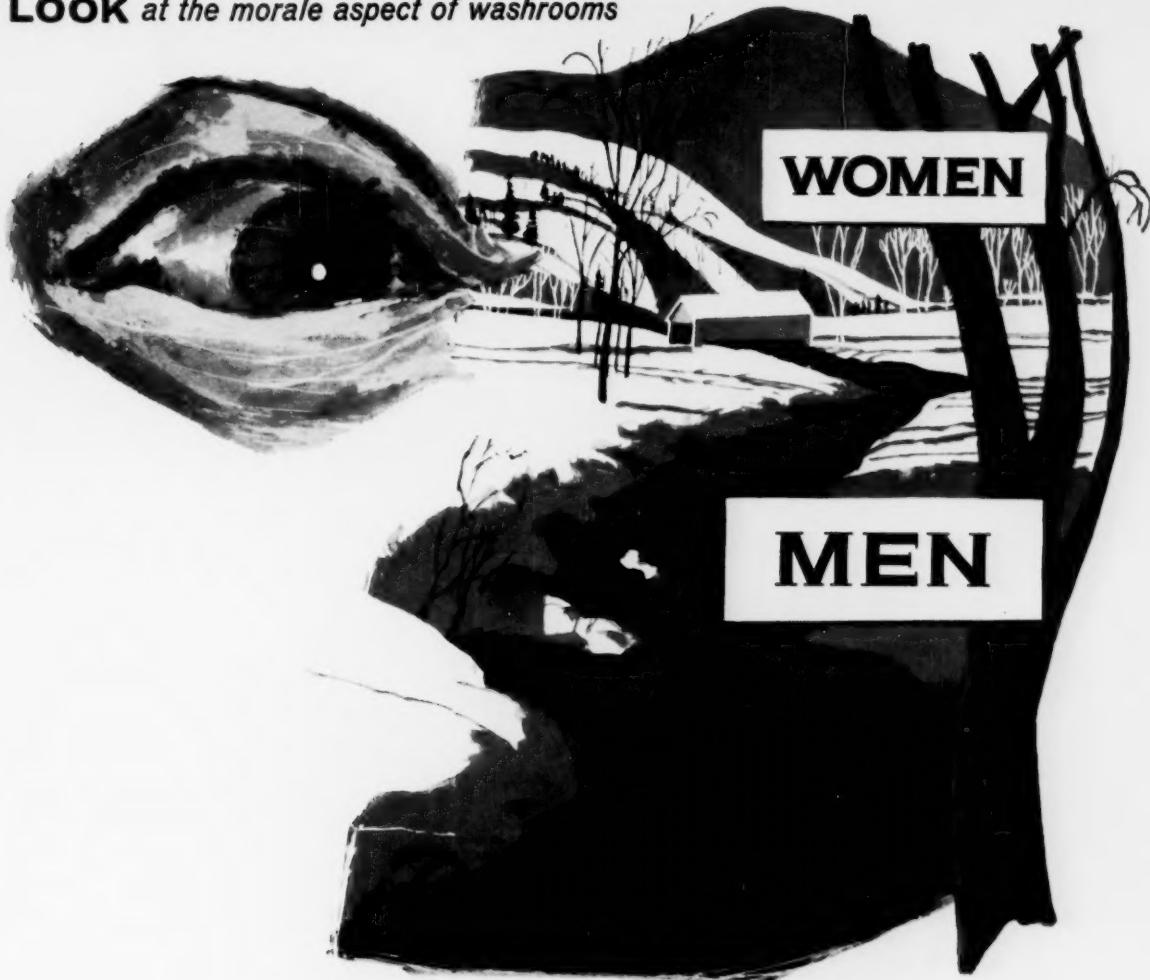
BURGESS-MANNING COMPANY

Architectural Products Division

749 East Park Ave., Libertyville, Illinois



LOOK at the morale aspect of washrooms



"HEALTHY" FRESHNESS

A clean, fresh atmosphere in washrooms pleases everyone. Makes washrooms "feel" clean. Reflects management concern for individual health and welfare.

This kind of freshness is easily maintained with modern automatic West deodorizers that contain a pleasantly perfumed aromatic fluid. These modern devices are neatly encased in white plastic. They are loaned, installed and maintained free of charge — as part of the **WEST WASHROOM SANITATION PROGRAM**.

The **WEST WASHROOM SANITATION PROGRAM** includes heavy-duty cleaners and disinfectants for facilities at regular intervals. Cleaners prevent drain clogging from salt buildup. Disinfectants kill micro-organisms that cause T.B., Polio, Typhoid, Influenza and other diseases.

PROGRAMS AND SPECIALTIES
FOR PROTECTIVE SANITATION
AND PREVENTIVE MAINTENANCE



WEST DISINFECTING DIVISION

WEST CHEMICAL PRODUCTS INC.
42-16 West Street, Long Island City 1, New York
Branches in principal cities
CANADA: 5621-23 Casgrain Avenue, Montreal

**WHITE-RODGERS COMPANY OF ST. LOUIS,
MO.** well-known manufacturer of automatic controls for heating, refrigeration, air-conditioning and appliances.



EDWIN W. KUHN, CHIEF ACCOUNTANT of White-Rodgers Company.

ALL NECESSARY DATA IS CAPTURED into punched cards as an automatic by-product of posting the hard-copy accounting records.

"Our *National* System with Card Punch Coupler saves us \$4,800 a year... returns 50% annually on our investment."

—White-Rodgers Company,
St. Louis, Mo.

"We feel that our National System is the fastest, most efficient system on the market today. With our National "31" and Card Punch Coupler, we are able to automatically process approximately 2000 Voucher Checks and 6000 distribution cards per month.

"Our National System has helped us reduce costs in a number of ways. We have eliminated the need for a numerical copy of our vouchers since the vendor's name is automatically punched on all cards. In addition, all pertinent invoice data and the standard product cost is punched into these cards. This provides us with a Daily Voucher and Cash Disbursement Register plus a listing and totaling of accounts for purposes of budget comparison and reporting. It also facilitates trial balance

and general ledger work. The result is a reduction of form and filing costs, an automatic account analysis and a shortening of the time required to reconcile bank statements.

"We wholeheartedly recommend a National System to any manufacturing company. Our National System provides us with accurate records and reports so essential to proper management. It saves us \$4800 a year and returns 50% annually on our investment."

Your business, too, can benefit from the time- and money-saving features of a National System. Nationals pay for themselves quickly through savings, then continue to return a regular yearly profit. National's world-wide service organization will protect this profit.



* TRADEMARK REG. U. S. PAT. OFF.



Chief Accountant,
White-Rodgers Company

National*

VERSATILE DATA PROCESSING
ADDING MACHINES • CASH REGISTERS
ACCOUNTING MACHINES • NCR PAPER

THE NATIONAL CASH REGISTER COMPANY, Dayton 9, Ohio

1039 OFFICES IN 121 COUNTRIES • 75 YEARS OF HELPING BUSINESS SAVE MONEY



“Wish Our School Had These Keen Showers”

The game is over, and to the home and visiting teams, bathing is part of the fun. It's "time out" now to relax and refresh.

But it's never "time out" when it comes to safety, especially where eager students are on their own, and hot water can be as dangerous as it is plentiful. That's why built-in protection is so vital in school shower systems and why Hydroguard individual thermostatic controls have become a standard for safety.

The Hydroguard's simple, single-dial control is foolproof in the hands of any student. A safety limit prevents delivery of scalding water, even if the dial is accidentally turned to maximum hot. Should the cold water supply fail, the Hydroguard instantly shuts off. Equally important, it prevents fluctuation in water temperature. This eliminates a frequent cause of shower room accidents — scalding or injury due to slipping or falling in an effort to escape bursts of hot or cold water.

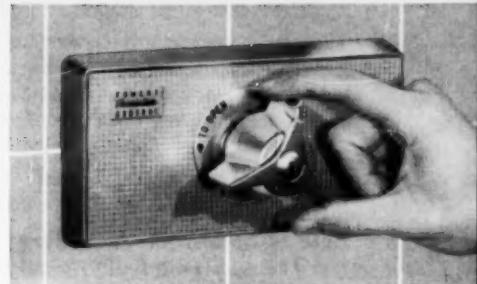
A safe shower system is a "Hydroguarded" shower system. Get the facts. Request illustrated booklet, *Safer Showers* and ask for slide film showing of *Safe Shower Systems*. Contact The Powers Regulator Company, Dept. 1259, Skokie 7, Illinois.

POWERS

*Specialists In Thermostatic Controls
Since 1891*



Standard For
Safety In
Shower Systems



POWERS

*Hydroguard®
Individual Thermostatic
Controls*

THE POWERS REGULATOR COMPANY,
Dept. 1259, Skokie 7, Illinois

Send illustrated booklet, "Safer Showers".
 Arrange for showing of new slide film, "Safe Shower Systems".

Name _____

Title _____

Address _____

More FIRE SAFETY in our schools

Safety built-in with good acoustical ceiling construction

These unretouched photographs vividly demonstrate the comparative fire retardant qualities afforded by an acoustical ceiling constructed with acoustical tiles cemented to a backing material like gypsum board.



1. Above this corridor the acoustical tile was hung in a metal suspension frame, without a solid backing material. Here, the flames quickly burned through. The spline ceiling fell out altogether and the steel joists above were badly damaged by the flames.



2. Above this corridor acoustical tile was cemented to a gypsum board backing which, as shown here, has been pulled away to reveal the steel joist framing, undamaged by the fire. (Note: Both photos taken after fire in Brighton High School, Birmingham, Alabama.)

Fire safety plus better sound control

Both of these acoustical ceilings were installed primarily to *control sound*. But only the ceiling with the acoustical tile cemented to a solid backing material provided the best in *sound control, plus* a highly desirable factor of fire safety.

Solid-backed acoustical ceilings offer many advantages: effective sound isolation (in addition to good absorption), low maintenance cost, quick access to utilities (services), low cost partitioning (with economical flexibility).

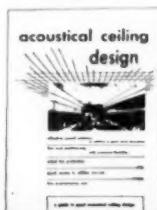
Economical, too

Although the safety of human life is a primary consideration in the design of a school structure, economy is always to be desired. The suspended acoustical ceiling that specifies a fire-rated backing material can, as in the case of this school fire, prevent costly property damage. Note in Picture 2 above how the solid-backed ceiling protected the steel joists.

Furthermore, in some localities it will be found that properly constructed acoustical ceilings, using a rated backing material, substantially reduce insurance premiums. In fact, in some cases a premium *penalty* is imposed when a suspended ceiling does not conform to fire-rated specifications.

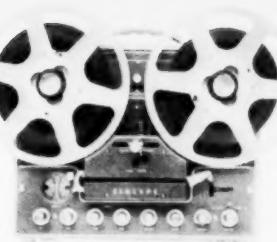
How much fire safety do you get from the acoustical ceilings in your schools, present or contemplated? How effective are they as sound absorbers — and barriers?

It is most important to check these points with your architect.



A guide to good acoustical ceiling design.
Free copy available from
The Schuyler Hopper Company,
12 East 41st Street, New York 17, N. Y.

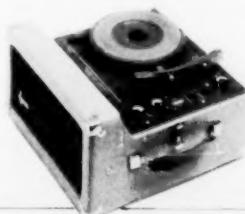
NEW



STEREO TAPE RECORDER

For language, music, speech instruction. Newcomb introduces Model SM-310, cybernetically engineered for intuitive operation. Simple enough for students to operate. Easiest on tape. Records live stereo as well as recorded or broadcast material, and 1/2 track monophonic, 2 speeds. 10 1/2" reel capacity.

NEW



CLASSROOM HI-FIDELITY PHONOGRAPHS

Engineered specifically for day-in-and-day-out classroom use, new model Newcomb phonographs are more dependable than ever. New 4 speed motors, bigger speakers, more power, rubber record mat—a multitude of advanced features. Several models.

NEW

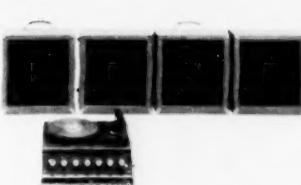


CLASSROOM HIGH-FIDELITY RADIOS

The finest table model radio ever built for classroom is the Newcomb AM and FM Model AFM-1500. Sensitive, powerful, stable. High acoustic output. New tone control for optimum intelligibility. Built-in AM and telescoping FM antennas. AM only model also available.

NEWCOMB

NEW



PORTABLE TRANSCRIPTION PLAYER P.A. SYSTEMS

There's a new Newcomb TR Series player for every use—from music room to athletic field. Nineteen models, choice of ceramic or magnetic cartridges—one to four speakers, power from 10 to 56 watts. Include every feature you have asked for in a portable system.

NEW



HEADPHONE LISTENING CENTER EQUIPMENT

For language study, library use, group within a group listening. Newcomb brings you the most satisfactory listening center equipment yet offered. Eight red and black headphones of conventional design, combining high quality with low cost, supplied in compartmented case.

■ NEW STYLING—GRAY AND CINNAMON BROWN ■ NEW MOTORS, TURNTABLES, PICK-UPS, REPRODUCERS ■ Same old quality, dependability, safety... Still built with crackproof plywood cases, fabrikoid covered, metal corners, spring-suspended feet, transformer powered—all of the features which give that special meaning of quality to the name **NEWCOMB**

Note: Handy printed bid specifications are also available.

NEWCOMB AUDIO PRODUCTS CO. Department NA-12.

Gentlemen: Please send me data on the following:

STEREO TAPE RECORDER CLASSROOM PHONOGRAPHS
 CLASSROOM RADIOS AM & FM AM ONLY
 TRANSCRIPTION PLAYER/P.A. SYSTEMS HEADPHONE LISTENING CENTER

NAME

STREET

CITY

STATE

6824 Lexington Avenue, Hollywood 38, California



ONE STANDS OUT

The science of seas, seeds or satellites could well be the all-consuming interest of this young scientist-to-be. The scientific design and manufacture of posture-correct seating and work desks are the prime concern of Virco Manufacturing Corporation. The Virco #200 Series classroom chair and the Virco #7961 single pupil desk have long been favorites with school administrators everywhere. Virco designs and manufactures school furniture for "kindergarten through college". For your free copy of our new full-color catalog with complete specifications, write to Virco Manufacturing Corporation, P.O. Box 44846, Station H, Los Angeles, Calif., or Virco, Conway, Ark.

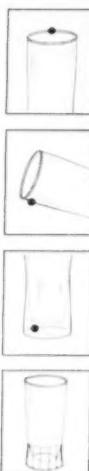
VIRCO



Reprints of this page, suitable for framing, are available free upon request, by writing to Virco Mfg. Corp.

Libbey Esquire Tumblers offer 4 Big Advantages...

- 1 "Safedge" glass is guaranteed: "A new glass if the rim of a Libbey 'Safedge' glass ever chips!"
- 2 Curved side wall design bulges slightly near top, protects rim if glass is turned over.
- 3 Heavy base, handsome manly design, make Esquire glasses easy to hold.
- 4 Esquire Tumblers are available plain or fluted in a complete range of eight sizes.



The attractive shape of Esquire Tumblers adds a distinctive touch to beverage service, and every glass can be decorated with your emblem or motif for added prestige. Esquire assures operating economy, too, because of its amazing durability.

Libbey is the exclusive choice of leading restaurants because it combines customer-pleasing beauty with management-pleasing durability and economy.

For full information on Esquire and all the other economical Libbey patterns, see your Libbey Supply Dealer, or write to Libbey Glass, Division of Owens-Illinois, Toledo 1, Ohio.



Can be crested with your own crest, trademark, or slogan for added distinction.

LIBBEY SAFEDGE GLASSWARE
AN **(I)** PRODUCT

OWENS-ILLINOIS

GENERAL OFFICES • TOLEDO 1, OHIO

When their lives are in your hands...

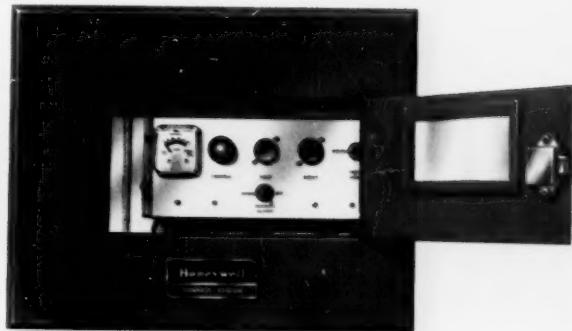
**Give them the 4-way
protection of a Honeywell
Fire Detection and Alarm System**



Automatic Detector



Manual Station



W247 Panel

1. DETECTION. Honeywell automatic detectors sense a fire within a few seconds and automatically set off the alarm at the central panel. These detectors can be placed anywhere, including such hidden danger areas as broom closets and supply rooms. They give your pupils and school property day and night fire protection. For double

security, Honeywell manual stations can be placed in strategic locations for manual sounding of the alarm.

2. PINPOINT LOCATION. Honeywell fire alarm systems can pinpoint the location of the fire either with colored lights as shown below, or by means of a coded bell system.

3. FAIL SAFE SYSTEM. Honeywell Fire Alarm Panels, like the W247 or the W237 (shown at below left) can sound the alarm even with a double break or ground in the detector wiring. If the detector wiring is damaged so that an alarm could not sound, a trouble light glows at the panel.

4. AUTOMATICALLY NOTIFY FIRE DEPARTMENT. To save precious minutes in getting the fire department to your school, Honeywell Fire Alarm and Detection Systems can be connected to automatically sound the alarm at your nearest fire station.

**DOES YOUR SCHOOL HAVE THIS
4-WAY FIRE ALARM PROTECTION?**

If your school does not have all four of the fire alarm system features above, your pupils and school property do not have adequate fire protection.

If the fire alarm system in your school doesn't give you this completely automatic 4-way protection, call your nearest Honeywell office today or write Honeywell, Minneapolis 8, Minn. A Honeywell Fire Alarm Specialist will tell you about the Honeywell Fire Detection and Alarm System and Honeywell's service plan that assures you of complete worry-free installation and maintenance.



Honeywell



First in Control

more for your money...

Rauland

all-facility

central control sound systems

You get *more* in a RAULAND School Sound System — more versatility, more durability, more value. Get every desirable feature for effective administrative control, educational program distribution and 2-way communication. Make your choice a money-saving RAULAND Sound System.



your choice of every
desirable feature and program facility

RAULAND Sound Systems are available to fit the exact needs and budget of your school. Available features include:

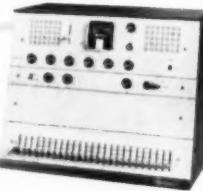
FM-AM Radio distributes any radio program on FM or AM to any or all rooms

Phonograph distributes phono program (choice of transcription player or record changer); also may be used with tape recorder

Microphones selects and distributes programs from multiple microphone locations

Intercom permits 2-way conversation with any or all rooms — privacy feature available

Special Features — Emergency Switch; all-call; provision for signal clock; telephone intercom; fire-disaster alarm facilities; remote control, etc.



Model S600

Budget-minded Dual Channel System — ideal for smaller schools—complete program distribution facilities plus intercom, for up to 46 rooms

There is an ideal RAULAND Sound System to fit the exact needs and budget of your school. Ask for full information.

RAULAND-BORG CORPORATION

write for
details

Rauland-Borg Corporation, Dept. N
3535 W. Addison St., Chicago 18, Ill.

Send full details on all RAULAND School Sound Systems

Our school has _____ classrooms.

Name _____ Title _____

School _____

Address _____

City _____ Zone _____ State _____

AT THE
UNIVERSITY
OF ILLINOIS



diners and dishes move
FASTER AT LESS COST



WITH AN
OLSON CONVEYOR SYSTEM

An Olson Conveyor System in beautiful Garner Hall helps to feed more students efficiently. Soiled dish trays are self-bussed by diners . . . placed on the moving belt conveyor at conveniently located loading stations . . . and move *without further handling* into the separate dishwashing room. The Olson System saves bussing costs, insures faster turnover of diners and quicker clean-up, and greatly reduces dish breakage.

The gleaming, stainless steel Olson installation complements the building's modern decor beautifully. It's safe and sanitary . . . fully-enclosed Olson conveyors and cabinets are so easy to keep clean and bright.

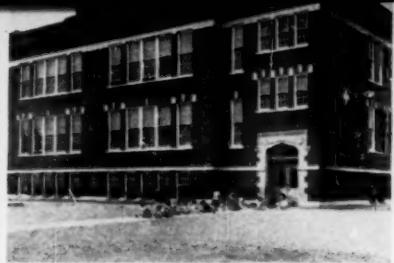
This stream-lined Olson System puts "production-line" efficiency into the dish-handling operation. It eliminates sporadic dish "pile up" . . . trays flow evenly to scrapping table and the last soiled dish is washed within minutes after the last diner leaves.

(All photos courtesy University of Illinois
Photography Department)

Send for Bulletin 1505—"Dish Handling Plans for Cafeterias of Schools, Colleges and Universities"

Olson Conveyors

MANUFACTURED BY
SAMUEL OLSON MFG. CO., INC.
2422 Bloomingdale Avenue
Chicago 47, Illinois
DIVISION OF CHERRY-BURRELL CORPORATION



BEFORE window modernization with glass block, worn-out window sash created a costly maintenance problem at the Wahkonsa School, Fort Dodge, Iowa.

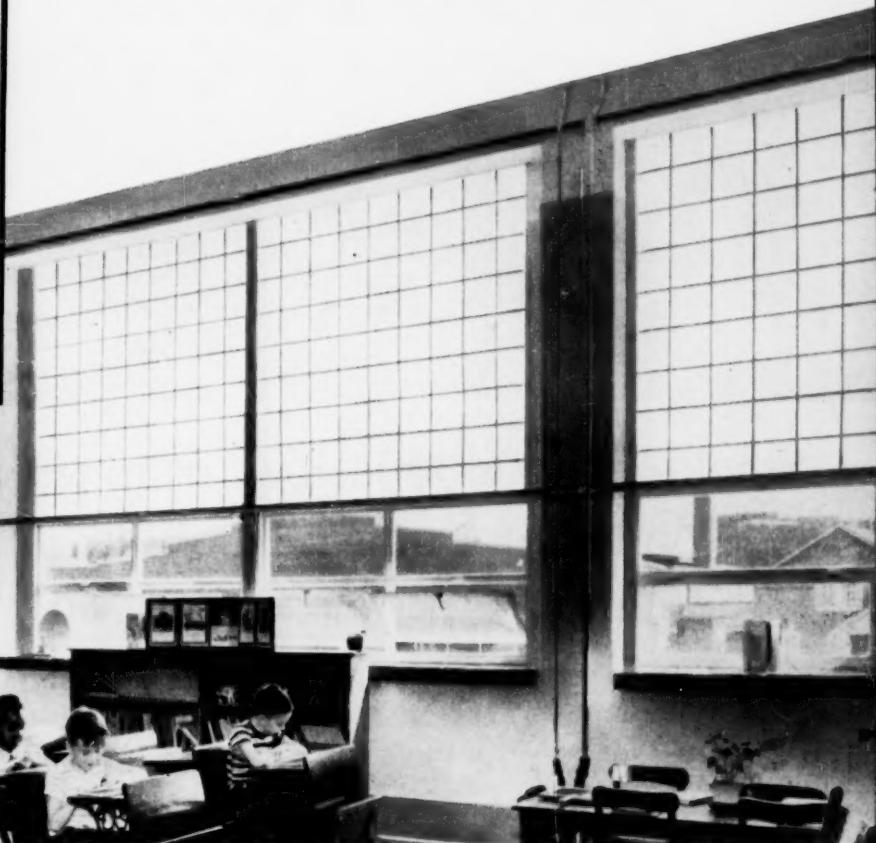


AFTER sash replacement with panels of Owens-Illinois Glass Block, maintenance costs were greatly reduced. The smart simplicity of glass block added modern, functional beauty.

OWENS-ILLINOIS

GLASS BLOCK...

for "new school" beauty outside, controlled daylighting inside!



INSIDE, glass block plus vision strip keep brightness at comfortable levels, provide vision and ventilation. Eye-straining glare and harsh contrasts are eliminated.

The problem you face is a common one: the modern features of a new school are undeniably attractive—but—your budget dictates low-cost modernization of your old, but still structurally sound, building. The best solution: Owens-Illinois Glass Block.

These photos demonstrate two of many benefits glass block can add to your present school. Exteriors get an architectural "face-lifting" . . . classrooms glow with cheerful, diffused daylight. Old-fashioned win-

dow shades are not needed. Costly window maintenance is virtually eliminated from your budget. Heating and lighting costs nose-dive because glass block insulate and daylight so efficiently.

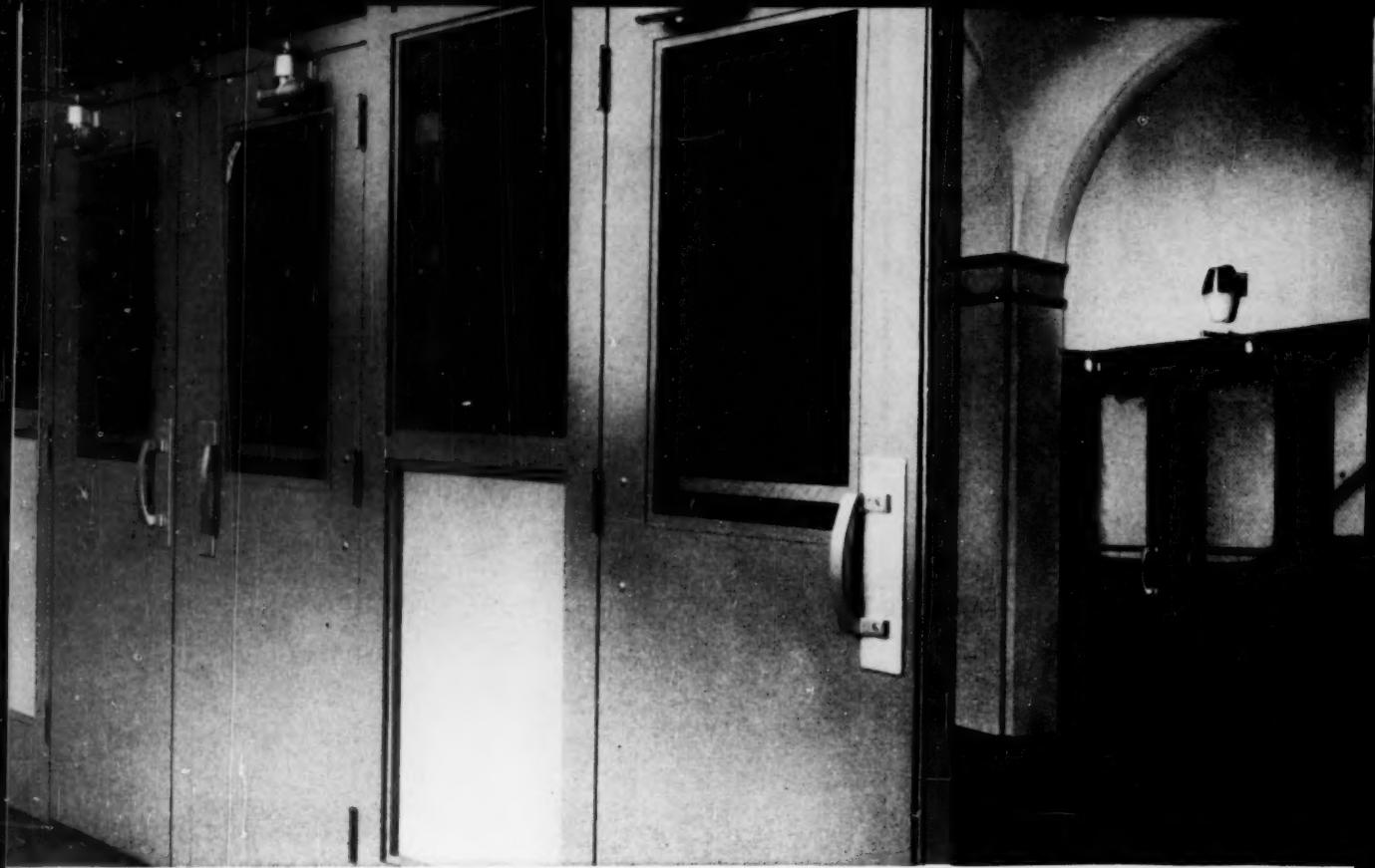
Don't overlook the outstanding advantages of window modernization with Owens-Illinois Glass Block. For complete information, write Kimble Glass Company, subsidiary of Owens-Illinois, Department NS12, Toledo 1, Ohio.

OWENS-ILLINOIS GLASS BLOCK

AN  PRODUCT

OWENS-ILLINOIS

GENERAL OFFICES • TOLEDO 1, OHIO



Smoke barriers, specified from the **Aetnapak** catalog of stock components, enabled Troup Junior High School and 18 other New Haven, Conn. schools to quickly comply with fire code regulations. For the

A-E-T-N

Aetna Steel Products Corporation, 730 Fifth Avenue, New York 19.



CONTRACTOR: R. A. CIVITELLO COMPANY • ARCHITECT: LESTER J. A. JULIANELLE

70-foot-long smoke screen-stairwell enclosure shown above, **Aetna** Steel delivered frame sections, doors and hardware within a week. No special engineering drawings or custom production were required.

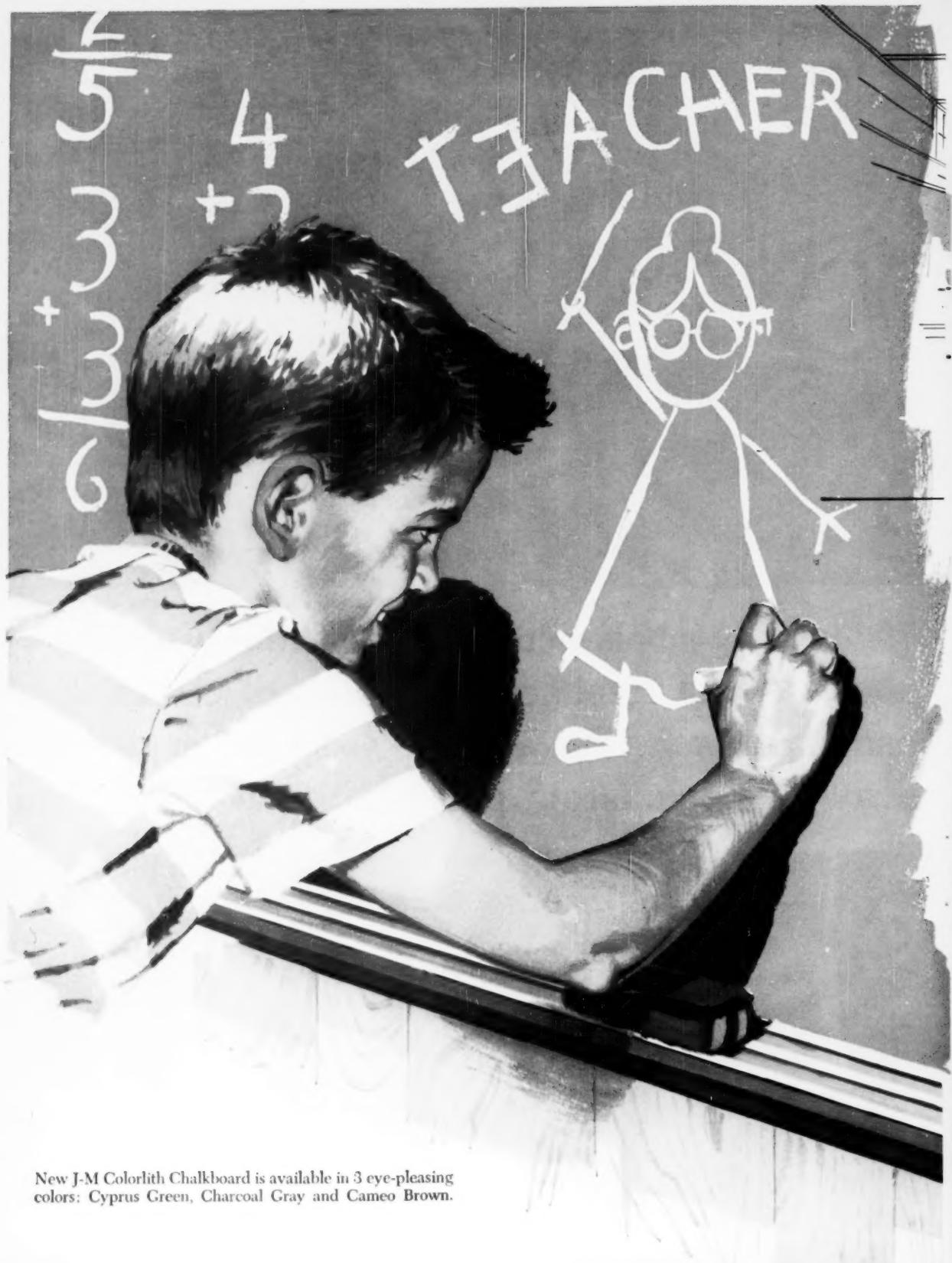
AETNAPAK®

AETNA STEEL
PRODUCTS
CORPORATION
730 Fifth Avenue,
New York 19, N. Y.

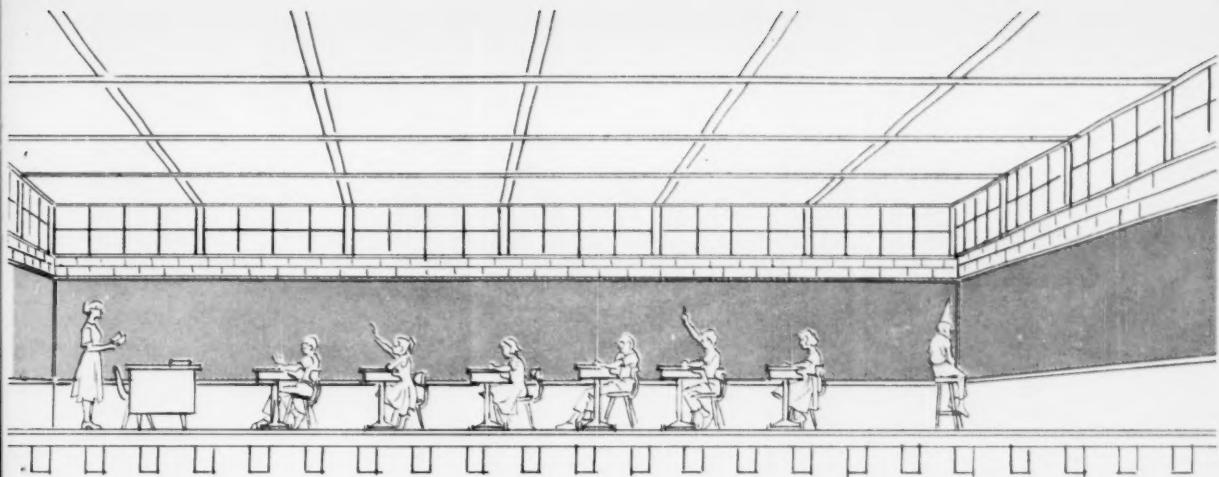
Please send free catalog of
AETNAPAK custom-quality, in-stock
steel doors, frames and hardware.

Name and Title _____
Company Name _____
Address _____
City _____ State _____

Write for complete **Aetnapak®** catalog:



New J-M Colorlith Chalkboard is available in 3 eye-pleasing colors: Cypress Green, Charcoal Gray and Cameo Brown.



New Johns-Manville *Colorlith*® Chalkboard

Never before has one material solved so many classroom problems

Architects say—Handsome color and texture run all the way through this homogeneous sheet . . . can't wear off.

Teachers say—Colorlith makes an ideal smooth, hard writing surface—erases easily—reduces writing fatigue.

Pupils say—We like the color . . . it's easy on the eyes . . . and we can always see what's written on it.

Maintenance Superintendents say—Colorlith is easy to maintain. Wash occasionally with clear water. Remove stains with household cleansing agents.

School Supervisors say—Colorlith chalkboards have the strength and durability to withstand daily classroom usage and give many years of service.

Taxpayers say—Meets the requirements of premium quality boards at low prices . . . and it's strong enough not to need any expensive backing.

Everyone connected with today's school problems of cost vs. quality finds an answer in new J-M Colorlith Chalkboard. Here is a dense, new homogeneous sheet developed to provide the same smooth, hard writing surface and light reflectance values as premium chalkboards—but at lower cost.

Colorlith gets great strength from integral mixing of Portland cement, carefully selected asbestos fibers, and selected pigments. It can be used in $\frac{1}{4}$ " thicknesses without expensive backing to make it rigid. Accurately butted joints need no divider strips which could hinder writing. Comes fully finished and ready to use as a self-supporting wall member. Its natural finish is durable—colors and pattern cannot be scratched off. Withstands heat, flame, moisture (fully washable) . . . acids and solvents in working concentrations.

Write for Colorlith specification sheet IN-230A and brochure EL-62A. Johns-Manville, Box 14, New York 16, N. Y. In Canada, Port Credit, Ontario.

JOHNS-MANVILLE



FOR QUALITY, DURABILITY,
DESIGN AND DEPENDABILITY

... discriminating buyers are now specifying

CUSTOM
cafeterias by

MODULAR
TRADEMARK

BASTIAN-BLESSING

World's largest manufacturer of fountain and counter food-service equipment



Listed under
"Restaurant Equipment
and Supplies"
in all cities
over 10,000 population

WRITE FOR CATALOG C-400 for full information about the dramatically new Custom-Modular line:
The Bastian-Blessing Company . 4205 W. Peterson Avenue . Chicago 46, Illinois, Dept. 17-L

LOOKING FORWARD

Education's Billion Dollar Experiment

BETWEEN one and two billion dollars will be spent in 1960 for new *high school* buildings — and every dollar of this capital outlay is an experiment!*

One might logically ask, isn't *all* schoolhouse designing a gamble or an experiment? Why is the discussion limited to secondary education? The answer is twofold: (1) The problem is not so serious for elementary schools, and (2) more and more of the capital outlay for school buildings is going into the secondary area.

For the primary and elementary grades, there is reasonable agreement that nothing can take the place of the living teacher. The young child needs personal contact with a mature and understanding adult (*in loco parentis*). Any amount of audio-visual aids, educational TV, or clerical aid for the teacher cannot alter the situation materially. And so the self-contained classroom as the principal housing for kindergarten, primary and elementary grades is a reasonable "gamble" for the design of elementary schools in the next two decades.

But it's a different story and a different problem for secondary education! Advocates of widespread use of television for teaching purposes believe that older students can be taught some subjects quite effectively in large groups. Others are saying that the process of learning for the teen-ager should involve more small-group discussions. From other research comes the debated question as to whether groups of 40 or 50 can be taught effectively by one teacher, assisted by a teacher aide. Some are quite serious about the use of individual teaching machines through which the child would be his own instructor. Not to be ignored are the beliefs of others that increasingly the education of the teen-ager should take place within the *entire* community, and that much of his learning should consist of firsthand observations and visitation over much of the geographical surround of the school. All this has implications for the manner in which the high school curriculum is organized and put into action.

A commendable effort to compile and interpret proposals for tomorrow's high school has been made by a commission appointed by the executive committee of the National Association of Secondary-School Principals.

*The U. S. Office of Education reports that for the school year 1956-57 (the latest data available) the total outlay for public school buildings was \$3,307,000,000. It is conservatively estimated that the total for 1959-60 will be between \$3.5 and \$4 billion. John Cameron, chief of the School Housing Section at U.S.O.E., estimates that from 40 to 50 per cent of current outlay for public school buildings goes for high school construction. On this basis, the cost of new high school buildings in 1959-60 will be between \$1.5 and \$2 billion.

The work of the commission, including the publication of its report, was made possible by a grant from the Ford Foundation. The study group is officially known as the Commission on the Experimental Study of the Utilization of the Staff in the Secondary School. The findings of the commission have been written by its director, J. Lloyd Trump, and published in a booklet entitled: "Images of the Future, a New Approach to the Secondary School."

This report became the educational specifications for 10 different concepts of the high school of tomorrow, as envisioned by 10 architects nationally known for their outstanding work in schoolhouse planning. These ideas, in the form of floor plans, sketches and models, were presented a few weeks ago at an architectural workshop at the University of Michigan, conducted on behalf of Educational Facilities Laboratories, Inc., an agency of the Ford Foundation.

Some of the proposed buildings emphasized wide open spaces within which almost any kind of instructional areas might be organized. This idea was identified as the big barn, the big envelope, or the loft theory. Others involved a great amount of highly specialized spaces. Nearly all the proposals included the idea of individual stalls or booths for every student.

The Trump report assumes that "the class of 25 to 35 — frequently found in today's schools, and often highly esteemed — will have no regular place in the secondary school of tomorrow." The report argues that a class of 25 is unnecessarily *small* for large-group instruction activity — that it is too *large* for effective study, and too *large* for successful discussion. The secondary school of the future, states the report, "will be organized around three kinds of activities: large-group instruction, individual study, and small-group discussion. Large-group instruction will occupy about 40 per cent of the student's time."

Another 40 per cent of the student's time will be allotted to individual study. The remaining 20 per cent of the time will be scheduled for small-group discussions, to take place in small rooms suited for this purpose. Here, then, we have the physical pattern for the school plant.

Other chapters are just as courageous in breaking with tradition. For example, the report predicts there will be much less scheduling of students in 40 to 55 minute class periods. Class groups will meet an average of only 18 hours a week instead of the present 30 hours. The instructional staff will include both general teachers and staff specialists. There will be instruction as-

sistants, clerks, general aides, and community consultants. The administration of the secondary school of the future will be much more complicated. The salary schedule may range from as low as \$1.30 per hour for general aides up to \$5500 for general teachers, and an average of \$8000 for teacher specialists. We refer to these proposals briefly and quite incompletely, our only purpose being to note that not merely the design but nearly every phase of planning for tomorrow's high school is a great experiment.

Probably the only way we will ever find out whether these ideas are practical and desirable is to try them. There is some research to support these contentions, but for the most part the proposals are based upon assumptions, beliefs and occasionally the pet projects of special interests.

We challenge the assumption that every teen-ager should have an individual cubicle or a compact office in which he would spend up to 40 per cent of his time. We need to know a lot more about teen-age behavior before we can be sure of the social maturity and the self-discipline that this kind of program anticipates.

Any assumption that a definite amount of time or space within a school plant should be allocated to large-group instruction and another definite area of time and space should be reserved for small-group discussions must be recognized as conjecture or rationalization, rather than being based upon valid research. We need to learn more about how teen-agers learn in groups, large or small, before we can commit our high schools to a *fixed* distribution of spaces.

Our plea then is this: Let's make the great experiment in high school design simultaneously a great project in research. In some degree these architectural plans for tomorrow's high school will find form in actual buildings and in actual school programs. We will need accurate and adequate observation of what happens. Documentation — if you please — or case studies.

These observations can best be made by an outside agency having no vested interest in the school itself. Without a basis for evaluation and comparison, we will be repeating both old and new mistakes, only they will be much bigger and more costly.

The Meaning of Christmas

WE HAVE been seeking a new thought for a Christmas editorial. Most editorials about this religious holiday are reviews of things that have been said before — and deserve repeating. Appropriately, we might decry again the extreme commercialism that now dominates the Christmas scene. Stores start their sales propaganda even before Thanksgiving Day, and advertisements pressure one to buy things that aren't needed so that people who receive these gifts also must buy things that aren't needed, to send in return. An avalanche of commercially produced Christmas cards swamps the mails, but most of the senders are too busy to add a personal message. Christmas has become, for too many of us, a period of extra expenses, extra work, and exhausting festivities.

Fortunately, this is only part of the story. We are just beginning to understand the real religious significance

of Christmas Day. Brought up in a church atmosphere, we have been puzzled by the apparent lack of historical documentation to prove the existence of an historical Christ, other than the Bible itself. Apocrypha and folklore about the life of Christ on this earth are given much religious significance. But such evidence is not accepted by the historian.

Historically, we really don't know the day or the year of Christ's birth. Collier's encyclopedia reports that "the Church at Rome assigned December 25 as a date for the celebration of the feast [commemorating Christ's birth] possibly about A.D. 320 or 355. . . . The choice of December 25 was probably influenced by the fact that on this day the Romans celebrated the feast of the sun god."

The year of 1959 A.D. more likely is the year 1963 or 1964, if dated from the birthday of Christ. Collier's explains: "The dating of the Christian era is based upon the sixth century computation of a monk who, by miscalculation, assigned the wrong year to the birth of Christ." States this source: "Herod the Great, who was reigning when Christ was born, died in 4 B.C., and obviously the birth cannot have taken place four years later."

When friends referred us to that great book by Albert Schweitzer, "The Quest of the Historical Jesus," we thought, at last, we will find the evidence. But we didn't, and neither did Schweitzer. At first, we were reluctant to accept his conclusions, but more and more his answer satisfies our own quest. At the end of 400 printed pages of analysis, he writes: "We thought that it was for us to lead our time by a roundabout way through the historical Jesus, as we understood Him, in order to bring it to the Jesus who is a spiritual power in the present. This roundabout way has now been closed by genuine history. . . . But the truth is, it is not Jesus as historically known, but Jesus as spiritually arisen within men, who is significant for our time and can help it. Not the historical Jesus, but the spirit which goes forth from Him and in the spirits of men strives for new influence and rule, is that which overcomes the world."

Arnold Toynbee, the great historian, brings us similar assurance in his "An Historian's Approach to Religion." From his vast understanding of all known history, Toynbee, too, offers a spiritual rather than an historical explanation of man's attempt to discover his creator. He writes: "Man is confronted by something spiritually greater than himself which, in contrast to Human Nature and to all other phenomena, is Absolute Reality. And this Absolute Reality of which Man is aware is also an Absolute Good for which he is athirst. Man finds himself needing, not only to be aware of It, but to be in touch with It and in harmony with It. That is the only condition on which he can feel himself at home in the world in which he finds himself in existence."

This is not a new thought. It's a different way of expressing a truth that people have been discovering for nearly 2000 years. But for us, and perhaps for you, it is a new emphasis on the meaning of Christmas.

The Editor

**SIMULATED HORROR
TAUGHT
EVACUATION IN
MOCK SCHOOL FIRE**

LEO E. BUEHRING

"INJURED" PUPILS lie on blankets spread on school grounds pending arrival of ambulances and other vehicles.



Milwaukee Journal Photo

FIRE drills are well and good up to a point. That point is: the moment a serious fire is *discovered*.

At such moment a blocked exit or any single environmental change from earlier drills may upset all previous plans and directives. The children may panic. In fact, they are almost certain to panic, for that reaction has been demonstrated.

Lt. Robert McGrath, Chicago fire evacuation specialist, after alerting the nation's hospitals to the inadequacy of their fire drills, is moving into the schools with his dynamic demonstrations. Lt. McGrath can show that conventional fire drills are not enough. He advocates evacuation exercises under conditions simulating an actual conflagration.

The first communitywide disaster drill in which public schools furnished the "victims" took place last August 20 at Waukesha, Wis., less than an hour's ride west from Milwaukee.

(Cont. on Next Page)

"FIRE VICTIM" (right) is suffering from a "compound fracture" of the right arm after jumping from a "burning" building before firemen arrived.



Milwaukee Journal Photo

Photo by the Milwaukee Sentinel



SOME "VICTIMS" jump from the school's first floor into a fire net before all ladders are set up. Note firemen in window background are wearing gas masks

During this dramatic demonstration some 150 children were evacuated from Barstow Elementary School. Sixty of these children were carried down ladders as the firemen rescued them from "smoke and fire entrapped classrooms." The "injured" were rushed to Waukesha Memorial Hospital where 35 doctors and 50 nurses and nurse's aides had been alerted for their arrival.

Involved in the Waukesha "dry run" of a school fire were 500 persons. These included city police, the sheriff's office, the city fire department, area civil defense authorities, the local hospital, the Red Cross, and volunteer rescue teams from business, civic and service organizations. Supt. R. G. Hein of Waukesha public schools was active in planning the disaster drill and Rudolph A. Kohta, principal of Barstow School, helped supervise the evacuation.

The Waukesha approach to a school fire may well set the pattern for other cities to follow, Lt. McGrath believes. Supt. Hein agrees, and comments as follows:

"The evacuation of Barstow Elementary School as part of our community disaster drill was very effective. It offered the schools a fine opportu-



Milwaukee Journal Photo

REALISTIC "INJURIES"
(result of makeup skillfully applied as on child at right)
ranged from lacerations to double fractures and just plain blackened faces.

nity to work cooperatively with all community forces. As a result of the mock fire, we have instituted some new safety policies. In Waukesha schools fire drills will no longer be monotonous details."

Lessons Learned

Following Project Waukesha, Supt. Hein and Principal Kohta offer to other school administrators two important suggestions:

1. Anyone discovering fire or smoke should first sound the school fire alarm. Teachers, office workers, maintenance employees, all should be instructed to act on their own initiative in this matter. *Don't restrict this duty to the principal's office.*

2. Notify the fire department next — but not until after the school alarm has been sounded.

The Waukesha administrators suggest that, in anticipation of a possible emergency, a school should file with the local fire department a list of approaches to the school building. This list would give the location of the main entrances, would show the most logical approaches for fire equipment, and would indicate areas where evacuated children are to be grouped.

Under such plan firemen could get to the danger point quickly, and children would not be endangered by approaching fire engines and apparatus.

Since the mock fire, Waukesha schools have fire drills monthly or oftener. Principals are asked to follow these new procedures:

1. Fix a theoretical fire location for each drill. Block certain exits and let teachers and pupils use alternate evacuation routes. This brings resourcefulness into the drills.

2. Instruct each teacher to be sure she knows where each of her pupils is at all times. When a fire alarm sounds and she and the children evacuate the classroom, she is to take with her the class attendance book, as well as a check-off sheet of class members. This sheet is to be posted in each classroom on the wall nearest the door.

3. Require each teacher to take her group to a separate, previously designated location on the school grounds or beyond. Grouping areas must be so planned as to remove the children from both fire and traffic hazards. In some instances evacuation will not be complete until the children have been taken across near-by traffic lanes.

4. Keep each group of children to-

gether in its assigned area. Teachers automatically will mark the roll call sheets and have them ready for the principal, who will maintain contact with all groups. The attendance book will show which pupils are absent at the time of the alarm.

5. In case of injuries during an actual emergency, furnish a list of injured promptly to the Red Cross unit.

The Waukesha mock fire suggested that it would be a wise course to compile a list of pupils safely evacuated so that parents can be notified and their anxiety relieved. At intervals of five minutes, these lists could be read over local radio and television stations. Parents would be urged to stay at home and await such word rather than tie up telephone trunks or attempt to get through police street blocks to the hospital.

Why Project Waukesha?

To appreciate fully the objectives of Waukesha's realistic disaster drill, it is necessary to understand the thinking of Lt. McGrath and local school and civic leaders.

Lt. McGrath had spent five years in developing principles of fire safety and evacuation of hospital patients and in



teaching these principles and techniques to hospital administrators and personnel, when in his hometown 95 persons lost their lives in Our Lady of the Angels School fire in December 1958.

In Chicago, as in all other cities, the fire department stepped up school inspections. On nine such inspection assignments, Lt. McGrath was able to observe fire drills. He regarded them as orderly and purposeful. Yet he realized that in a real fire with billows of smoke and intense heat cutting off corridors and stairway exits the three-minute march to the open air and safety might become a rout or a tragedy.

A week later Lt. McGrath returned to one of these schools with two red carpenter sawhorses. Unknown to teachers and pupils, he set these wood sawhorses in front of a stairway exit, blocking it off. Once again the fire

FIREMEN RESCUE school victims by employing the two-arm carrying method, advocated by Lt. Robert McGrath, rather than the over-shoulder method. The McGrath method keeps the patient's face toward the sky and avoids fright that might be induced by facing him toward the ground from great heights. Also, a patient can be handed down more easily to another fireman lower on the ladder.

Milwaukee Journal Photo

'Fire drills are well and good

— up to a point. That point is:

the moment a serious fire starts!

alarm sounded. And what happened? The children piled up around the blocked exit, not knowing where to go next. In a real fire they might have been trapped, trampled and suffocated.

The lieutenant envisioned the fatal results of a sudden violent emergency — an explosion, a pilotless jet or a driverless gasoline truck crashing into the classrooms, a tornado, or even enemy action. In such event the conventional fire drill might be little more than a tragic gesture.

Following any catastrophe real or self-made experts are quick to come up with suggestions about how loss of life or the emergency itself might have been averted. Rarely had the lieutenant heard of disaster procedures being widely discussed or enacted beforehand. As a result, most disaster sites are scenes of leaderless confusion; the tactics are spur-of-the-moment inventions or improvisations.

How different the picture might be if various groups within a community met together before a possible school disaster and decided what to do during the emergency! Basic defensive techniques could be adjusted to any sort of threat if they had been worked out in advance.

Out of the foregoing speculations the Waukesha Project evolved. The opportunity came when Robert M. Jones, administrator of Waukesha Memorial Hospital, invited Lt. McGrath to collaborate on a test of that hospital's disaster plan. Here was a

chance to involve the schools in a staged disaster.

Three planning meetings were set up: one of hospital officials, one of school, city and hospital administrators, and the third for civic and industrial leaders, plus the school and hospital people. In subsequent training sessions, Lt. McGrath instructed volunteer civilian evacuation squads in their specific duties.

Details Kept Secret

The day, the hour, the minute of the mock disaster was a secret. The newspaper editors knew, but they informed the public only of the fact that the project would "take place at a local school sometime this week."

There were to be three practice drills for the children — including one the day before the mock fire, and one the day after. On two days the selected children were brought to school from the local Y.M.C.A. and Y.W.C.A. in buses. Each had the consent of his parents, who had been informed by letter of the general requirements. Neither parents nor children knew the time of the "incident" until two hours before the alert. At that time nursing teams from Waukesha and Milwaukee began applying theatrical makeup to the children's faces and limbs so that their "injuries" could be identified at the hospital.

At 1:09 p.m. on Aug. 20, 1959, Barstow Elementary School looked as quiet and deserted to the passer-by as

did any other school building during the closing days of summer vacation. But 150 children were inside in designated classrooms.

About that moment Principal Kohta became certain he detected smoke. And so he did, for a smoke bomb had just been set off.

At precisely 1:10 p.m. Mr. Kohta pulled the school fire alarm, and immediately thereafter called the fire department.

Having closed the windows, 90 children marched swiftly from their classrooms to three regular exits. But a sudden gust of smoke and flame trapped 60 children in two southwest classrooms on the first and second floors.

Help in One Minute

It was exactly one minute before the first piece of fire apparatus arrived, and the chief radioed a disaster alert. The police picked up the fire chief's alert on its radio call system and passed it along. Police and fire vehicles and private ambulances blew their sirens for 30 seconds to indicate: "Waukesha is on a disaster basis right now." Factory whistles blasted forth. Soon police alerted the hospital that from 60 to 100 casualties would be on the way shortly. In the meantime firemen actually dragged hose lines into each end of the building "to keep the temperature down" as much as possible until rescue work was completed.

The first rescue team arrived in four minutes. And none too soon. Amid

LT. ROBERT McGRATH (white shirt) assists volunteers in carrying "casualties" from smoke-filled school ground. A fire lieutenant (background) administers oxygen to a boy "overcome" by smoke.

Photo by the Milwaukee Sentinel



DELIVERY TRUCKS are used in addition to ambulances to transport children to the hospital. Use of civilian equipment for emergency purposes is in compliance with Lt. McGrath's evacuation plan.

Milwaukee Journal Photo



BANDAGES AND SPLINTS (above) are applied to "fire victims" but no internal medicines are administered. . . . **ACTOR PATIENTS** (right) are removed to the cafeteria for refreshments as a reward for their participation.



... sound the alarm first; THEN call the fire department!

clouds of smoke two boys "jumped" from second floor windows before the firemen had arrived; there they lay with compound fractures of the leg or arm and other injuries. Three children plunged into the fire net before the firemen could get their ladders up to the second story windows.

The ladders went up very fast, though, and firemen with masks and asbestos gloves climbed up and into the windows, handing out children one by one to other firemen who scurried down the ladders in a constant flow. The pupils were laid on blankets on the school grounds. All the children were evacuated in 12 minutes flat — from the time the alarm was sounded.

Ambulances, panel trucks, station wagons, and even a big moving van pulled up at the fire scene almost simultaneously with the arrival of trained citizen blanket teams. The drill looked convincingly like the real thing to the 20 men volunteers, who had not been told that smoke bombs were to be used. Theirs was the responsibility of moving the children in the blankets onto stretchers and into the waiting ambulances and other conveyances. The last injured child was en route to the hospital 20 minutes after the fire was reported.

The police, sheriff's men, and civil defense auxiliary police kept the lanes open between school and hospital. They established the necessary road blocks and challenged and excluded unauthorized persons and all vehicles without red flags. This is a job police are trained to do better than any other agency, yet their failure to do this is one of the main stumbling blocks at any disaster scene, Lt. McGrath asserts. Not so in Waukesha!

Treatment Is Swift, Exact

Within half an hour after the alert signal, the 60th and final victim was being "treated" at the hospital. Personnel there had swung into disaster plan procedure upon the first call of the police. In six minutes 40 cots were up, and medical, nursing, engineering and other departments stood ready and waiting for the first victim to arrive.

Two receiving entrances were utilized. Victims were taken to sorting stations where they were tagged and moved into temporary wards. Some children were undressed and in bed before they realized exactly what was happening.

Those with minor or superficial injuries soon were guided into the hospital cafeteria, where later all of the

child actors were rewarded with refreshments. Throughout the exercise the faces of the children reflected the seriousness of the event that was being acted out.

A major lesson learned from this disaster drill was that the success of the program must not depend upon any one person, civil defense head or other. No individual can attempt to tell all the various agencies involved in a disaster what to do, once the disaster is under way. Even if he could do so, it would be an unwise step, since the "general" could be the first person to be injured.

Someone must integrate the entire project by bringing the various agency heads together in advance to discuss who will do what. But once agreement is reached on this point, the head of each agency is the boss, with chain of command prevailing. For example, the police handle traffic; the firemen do rescue work and put out the fire; the volunteers perform the specific job they have been trained to do.

Communication Is Essential

The important consideration is communication, so that each group will know what it is expected to do and the other groups will know what each

unit can be expected to do. Thus duplication, conflict and confusion are avoided.

Waukesha's project demonstrated the need for teamwork between schools and community. Heretofore, school fire drills had been held independent of other agencies. The school administration now is firmly resolved to maintain close liaison, particularly with the fire and police departments.

Do's and Don'ts

Principal Kohta reports that members of the Waukesha school system learned a great deal about fire safety from the disaster drill. "It was a lot of work," he says, "but it was well worth it." Mr. Kohta encourages other administrators to try the "actual incident" type of fire evacuation, even though they believe they now have a good fire protection system.

For those who want to use the mock fire technic in their own communities, there are these suggestions:

1. Begin planning well in advance, as there are many facets to be dealt with. Success depends upon having anticipated every possible situation. Teachers, especially, must be thoroughly prepared and convinced of the merits of the project.

2. Get the cooperation of every agency in the community. As Lt. McGrath states: "If and when disaster does strike, the school will not long remain an island of self-determination. All sorts of people will respond. There will be policemen, firemen, citizens, doctors, nurses and Red Cross representatives. There will be stretcher carriers, ambulance men, and truck drivers. Hospitals must be alerted. Lines of authority must be established, problems of communication and transportation worked out in advance."

3. See that school participation in the exercise is in the minutes of the board of education. There always is the possibility that some real injury might result during the drill.

4. Get the written permission of the parents of the children to take part. Make parents participants, rather than spectators. P.T.A. organizations particularly can be helpful.

5. Screen the children planning to take part. Check school records for earlier illnesses that might recur during the height of excitement. Don't accept children with heart conditions and others who may not prove equal

to the physical demands made upon them.

6. Investigate the possibility of need for a special blanket type of insurance to cover the event.

7. Avoid using an older school building as the locale of evacuation exercises. In the glare of publicity the project will receive, self-appointed critics may raise questions as to the school's ability to stand up under actual fire, even though it meets local code requirements.

8. Rehearse all evacuation procedures as often as possible before the event. The better rehearsed the children and teachers are, the less danger of a panic under the illusion of an actual conflagration.

9. Win the cooperation of local and area newspapers. The good school public relations so engendered will extend beyond the particular fire safety project.

Drill Is Successful

As to the disaster drill which he planned and directed at Waukesha, Lt. McGrath has this to report:

"Without going into a step-by-step evaluation, I am satisfied with all the connecting links in the whole chain. Almost every idea utilized proved more than satisfactory — in fact, far better than could be estimated for a first school-community-hospital disaster project. Almost 500 people, including the 150 children, now have a better idea of what can be expected of them if a real disaster should occur.

"School safety is a community responsibility, not solely that of the board of education, superintendent, principal and teachers. Children are everybody's wards. While dollars may provide a large measure of protection for them, no amount of money will ensure foolproof security. Some of the latter is more likely to come from realistic disaster training, with teacher and pupil working with the people that they are most likely to meet if disaster does strike."

Eliminate Human Element

Principal Kohta summarized his views as follows: "We in Waukesha hope by our prearranged plan and our practice of that plan to eliminate *human failure* in time of an emergency, thereby making our schools as safe for our children as they can possibly be."

PLEASED WITH the results of the mock fire, Lt. Robert McGrath relaxes over a cup of coffee. For 22 years he fought fires in Chicago's worst slums. When promoted to lieutenant five years ago, his job became one of preventing fires rather than fighting them; his title became "hospital inspector." His job turned out to be an impassioned crusade to make hospitals safer for patients and personnel.

This is the first time his fire safety methods have been used in schools.



Milwaukee Journal Photo



BEFORE the test fire of an abandoned Los Angeles school, numbers were attached to hallway walls in order to chart the progress of smoke.



Photos by Los Angeles Fire Department

FOUR months after the school fire in Chicago, the Los Angeles fire department set about finding the answers to school fire safety in the most direct way possible. In a carefully controlled experiment, firemen burned down a three-story school (The NATION'S SCHOOLS, June 1959), almost an exact replica of Our Lady of the Angels.

The Ford Foundation's Educational Facilities Laboratories underwrote the \$25,000 project. The Los Angeles school system furnished the building, a condemned junior high school.

The 75 fires set were designed to test the effectiveness of automatic vents, curtain boards (draft or fire curtains), and automatic sprinklers individually and in combination. Also tested were automatic fire and smoke detection equipment, fusible links, automatic door closers, fire resistant paints, and materials.

A total of 1200 man days were spent. The building was left a charred wreck, but not before it yielded a wealth of life saving facts.

The fire department released the results in a 264 page report prepared by the National Fire Protection Association. These results were almost completely negative.

Theories held for decades by the nation's top fire experts were discredited. Virtually all fire safety devices, except automatic sprinklers, flunked under test conditions.

Discouraging though it sounds, results of the fire experiment demonstrated clearly what not to do in attempts to achieve classroom safety. The report revealed that children's lives are snuffed out by smoke, not flames, in almost all school fires.

School hallways turn into smoke-filled death traps long before automatic

AFTER the fire, it was evident that hallways turned into smoke-filled death traps before automatic closing fire doors and self-opening draft vents went into operation.

GEORGE REASONS

Education Editor, Mirror-News
Los Angeles

SMOKE

IS THE

KILLER!

WHAT THE TESTS REVEALED

1. **Untenable smoke conditions** preceded untenable temperature conditions in nearly every test! With the test fires used in tests and no fuels added to the fire because of the construction of the building, smoke (specifically as it pertains to visibility and irritant effects) was the principal life safety hazard.
2. **Natural draft vents** of the sizes tested in this investigation, and installed and opened as described in each test, did not keep corridors and stairways tenable for exit use.
3. The addition of **curtain boards** with vents did not significantly aid in decreasing smoke spread through the building and, in fact, had an adverse effect on the action of the vents in some tests.
4. **Forced draft** up to the capacity tested failed to produce any more satisfactory venting action.
5. A **complete system of automatic sprinklers** will maintain low temperatures throughout the building and will prevent extensive build-up of smoke and irritating gases.
6. **Partial automatic sprinklers** (sprinklers installed in exitways but not in the fire area) did not prevent smoke spread throughout the building even when installed to provide a water curtain between the test fire and the corridors.
7. **Vents and partial automatic sprinklers** (sprinklers installed in exitways but not in the fire area) was not an effective combination.
8. **Combinations** of vents, curtain boards, and partial automatic

sprinklers (sprinklers installed in exitways but not in the fire area) did not prove to be satisfactory.

9. **Untenable smoke conditions** existed in the building before the operation of fusible link actuated devices.

10. **Enclosed stairways** will not provide protection against heat and smoke unless the doors are closed or are closed immediately after an outbreak of fire.

11. **Automatic heat detection devices** detected the presence of fire at about the same time that untenable smoke conditions were reached within the building.

12. **Automatic smoke detection devices** detected the presence of fire before untenable smoke conditions were reached, but not in sufficient time to allow complete evacuation of the test building.

13. **Opening a hole** to provide a vertical flue in the stairways did not significantly change any of the results.

14. **Cellulose fiber acoustical tile** (classified Class C and commonly known as "slow burning" under U. S. Federal Specification SS-A-118b) resulted in rapid fire spread when ignited. This constituted a distinct hazard in that it was the means by which fire could be readily transmitted throughout the building endangering all portions and persons therein. The rapid flame spread characteristic of the tile can be reduced with the application of a fire retardant paint (Underwriters' Laboratories, listed).

days, when doors and windows were shut. "We found untenable conditions were reached more quickly under hot day conditions, with wide open windows providing oxygen to feed the fires," Mr. Hill said.

Conditions are considered untenable when a victim cannot see more than 2 feet and when breathing is shut off by tears and coughing.

The tests showed children have much less time than thought previously to evacuate a building before it becomes a funeral pyre.

A typical test fire set on the first floor produced untenable conditions on that floor because of smoke within 3 minutes. Fumes and visibility reached the danger level in 4 minutes on the second floor and in less than 6 minutes on the third floor.

Heat became unbearable in 5 to 7 minutes on the ground floor and within 8 to 11 minutes on the second and third floors.

In every test, Mr. Hill said, untenable conditions were reached much more quickly than anyone had anticipated.

The only device that showed promise of all-around protection was the complete automatic sprinkler system with built-in heat triggered alarms.

"Such a system, with its immediate heat reducing and fire fighting ability, plus alarms to alert the fire department and occupants of the building, appears the only answer to the dilemma," Mr. Hill contended.

The tests showed complete sprinkler systems maintain low temperatures throughout the building and prevent excessive smoke build-up.

Furthermore, added Mr. Hill, "no additional construction to correct open stairwells or faulty transoms or doors would be needed if sprinklers were properly installed."

"An untold number of lives and millions of dollars that might have been wasted on inadequate protective construction will be saved by the tests," the fire marshal said upon release of the project report.

Sprinkler Systems Not Costly

Installation of sprinkler systems is a relatively inexpensive method of securing fire protection, Mr. Hill believes. "Complete systems could be installed in Los Angeles for about \$6000 a school," he said.

Already the Los Angeles city school system is installing such systems in its remaining 39 three-story schools. As soon as this is completed the systems will be installed in all two-story schools.

Schuyler Joiner, the business manager for the city school system, stated that cost of sprinkler installation will be par-

(Continued on Page 136)

closing fire doors and self-opening draft vents can go into action.

Curtain boards designed to stop smoke spread, automatic heat detection devices, holes over stairways, even enclosed stairways, all failed to live up to their life saving reputations.

"It takes from 2 to 7 minutes for conditions in a school to become untenable," Fire Marshal Raymond Hill declared.

"In the tests we conducted, not one vent or automatic closing device worked swiftly enough to prevent spread of deadly carbon monoxide and other fumes," he commented.

Automatic vents helped only in the reduction of property damage. So, also, did the automatic closing firebreak doors in hallways. They had little if any effect on life safety.

Fire resistant doors and paints also failed to uphold hopes of the experts. Slow burning acoustical tile was found

a hazard because it actually spread fire through the corridors.

Automatic closing transoms, designed to protect classrooms from fire heat, failed time after time to close before temperatures inside rooms reached the untenable point of 150 F.

One measure suggested since the Chicago fire was installation of partial sprinkler systems at probable hot spots such as chemistry labs and furnace rooms. Tests proved this ineffective.

A partial system allows most of a building's occupants to reach hallways safely, said Mr. Hill. But it takes only 5 to 10 minutes for 1000 carbon monoxide parts per million to collect in the atmosphere during a fire, he added.

With partial sprinklers, victims would get lost in the smoke and die unless firemen reached them immediately.

For years firemen have believed hazards of school fires were greatest on cold

SCHOOLHOUSE PLANNING

FALLOUT PROTECTION

A PLAN FOR SCHOOL SHELTERS

A report that could have vast consequence in school planning throughout the nation is "School/Shelter: An Approach to Fallout Protection." Sponsored by the Executive Office of the President, Office of Civil and Defense Mobilization, it is based on a federally financed research and development program conducted by Eberle M. Smith Associates, Inc., architects and engineers, Detroit. Collaborating in the study as educational consultants were Engelhardt, Engelhardt, Leggett, and Cornell of New York City. This article is a synopsis of that school shelter story with introduction by Wallace B. Cleland of the Smith firm, followed by adaptations from the report.

THE DEVASTATION of nuclear warfare has seemed so incomprehensible that it has been repeatedly equated to "mutual destruction" and "the end of the world." This, coupled with the rather mysterious and consequently terrifying characteristics of radioactive fallout, has resulted in the kind of mental block that says, "War is unthinkable!" To a considerable degree, America has in a score of years done a complete switch from isolationism (a bland assumption of security) to defeatism (a blind acceptance of insecurity).

The hard fact is that war is neither unthinkable nor impossible. No one seriously doubts that a next major war would be atomic and that it would result in unparalleled destruction, but no authority now visualizes it as totally catastrophic. There are limiting factors in atomic war, as there always have been in war. A particularly significant limitation is that the radioactive fallout that imperils one nation can be carried by globe encircling winds to threaten, to a lesser degree, the attacking nation.

War is fought with the knowledge that men will be killed; in modern war this would include great numbers of the civilian population. The House Military Affairs Subcommittee Defense Report estimated that an H-bomb attack on our 150 largest cities could wipe out 160 million people, about 90 per cent of our population. It also estimated that a complete shelter program (including protection from heat and blast, as well as fallout) could reduce the death toll to 3 per cent. In an attack on the United States at the present time, it has been approximated that three out of four deaths would be due to fallout. It is pointed out that a strong civilian population is an indispensable component to defensive strength.

(Cont. on p. 64)

While there are differences of opinion regarding techniques and costs, there is a remarkable consistency of opinion about the need for a shelter program among those people who really have studied the problem and have made the effort to become informed. Within the last two years, several major independent research committees have surveyed the situation and turned in reports advocating broad national shelter programs. These include the Gaither, Rand, and Rockefeller Brothers Reports. Within recent weeks, Gov. Nelson Rockefeller of New York announced his support of a New York State defense committee report advocating that shelters from radio active fallout be made a mandatory part of all new construction, and that they be installed where possible in all existing buildings at a "specified future date." Thus Governor Rockefeller became the first major elected official to espouse a compulsory shelter program to be financed from public funds.

Despite authoritative recommendations, why is there such great reluctance from the public and their elected officials to face the issues? Probably many people react the way one school superintendent did when he was asked to be of help on the research project here presented. He grimaced and said, "I don't even want to think about it!"

Aside from public disinterest, a principal obstacle has been the presumption that civilian defense is largely an individual or, at least, a state's rights matter. Curiously, this patterning of delegated responsibility has never been advocated extensively in planning national military defense preparedness.

THE COST FACTOR

In any plan to establish a national shelter program, the cost factor has seemed a major deterrent. Estimated costs have varied widely with the degree of protection proposed, but two of the major studies have suggested from \$20 billion to \$24 billion for a complete fallout shelter program. Added protection from heat and blast (needed only in the vicinity of target centers) has been estimated to cost perhaps twice that amount.

The consensus of the experts has been that fallout protection is the most urgent need and is the "best buy" in regard to total national security. Certainly, these cost figures are breathtaking, but some authorities point out that the sums are not quite so numbing when compared with our current rate of expenditure of more than \$40 billion annually for a military defense that is largely retaliatory.

In dealing with such astronomical sums, it is helpful to break them down to more comprehensible amounts. Usually, this is done on a per shelter occupant basis. The shelter program recently advocated in New York has been estimated to cost from \$25 to \$250 per occupant. The wide variance is due largely to whether existing basement space is initially available. The shelter costs proposed in the research here presented are for new buildings or additions and begin at \$50 per occupant beyond normal expenditures and range upward, depending primarily on the characteristics of the building type.

One of the bright spots in the scene is the possibility of providing dual-use structures, which consist of normal-use space needed for daily activities that could be converted to shelter use in an emergency. Toward this end, studies have been made of a number of building types, of which schools have seemed to hold particular promise.

— Wallace B. Cleland

Abridged From **SCHOOL SHELTER**:

School buildings lend themselves to advantageous use as fallout shelters. Here are some of the reasons:

1. Students in elementary, junior high, and high schools comprise approximately one-fifth of the population of the United States. Continued well-being of these youngsters is of absolute importance to our country's future.
2. Schools are distributed geographically in relationship to concentration of

population. Elementary schools, especially, are closely related to residential population.

3. The school is a permanently established organization with responsible leaders and orderly procedures.

4. Often the school building is the most substantial and best equipped facility in the community.

5. Except for housing, schools are currently the most prevalent building type in the United States. Thus, shelters in schools provide excellent opportunity for protection of large numbers of people.

In virtually all school planning, economy is a foremost consideration. Generally, this rules out the provision of separated shelter facilities used only in emergencies. Thus, it is important that all sheltered space be available and useful for daily educational purposes. How this can be accomplished in both new schools and additions has been the subject of four case study school designs.

CASE STUDY SCHOOLS

The attempt to combine the ideal school and the ideal shelter creates a number of problems, of which the most conspicuous is that presented by the necessity of surrounding educational spaces with adequate shielding for radiation protection. Obviously, this conflicts with current educational and architectural thinking directed toward achieving teaching spaces of maximum openness and natural light.

Planners believe, however, that enclosed instructional spaces can be made attractive and comfortable, and, in fact, have certain advantages over conventional construction. Among these advantages are better temperature and humidity control, which facilitates the use of air conditioning, and better illumination control, which improves the quality of classroom lighting and simplifies the use of AV-TV teaching technics.

The sheltered areas indicated in the case study schools are limited to classrooms or multipurpose rooms in order to make their facilities as typical as possible. These two types of spaces constitute 75 per cent or more of the area of the typical elementary school, and are the only teaching facilities standard to all elementary schools in all parts of the country.

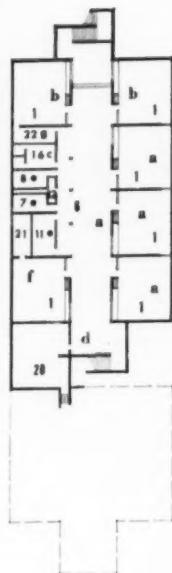
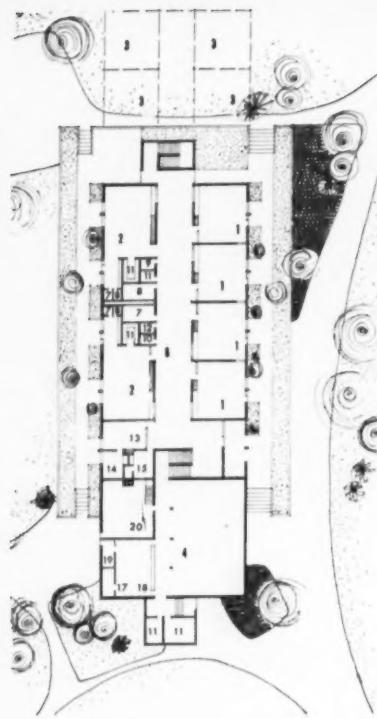
Junior high schools and high schools, by the nature of their class scheduling and variety of spaces, are a less critical problem in enclosing instructional areas. Lack of natural light and view is less important in rooms occupied for a single class period than in rooms occupied throughout the day. Thus, it is believed that elementary schools constitute the more difficult problems in school shelter design and for that reason exclusive attention has been given to them in these case study schools. Most aspects of this report, however, could pertain to schools for the upper grades.

The case study schools here presented have 12 or 16 classrooms, depending upon the building type. The designs are not conclusive, and other arrangements might be more suitable for particular conditions of climate, topography or educational program.

In general, the shelter areas are planned to accommodate the entire school population of pupils (assumed to be 30 per classroom), but in all instances the shelters could be modified to accommodate somewhat larger numbers, depending on the degree of crowding believed necessary. The typical elementary school provides a gross average of 45 to 55 square feet per child, which is four to five times the space allotment considered the minimum acceptable for shelter.

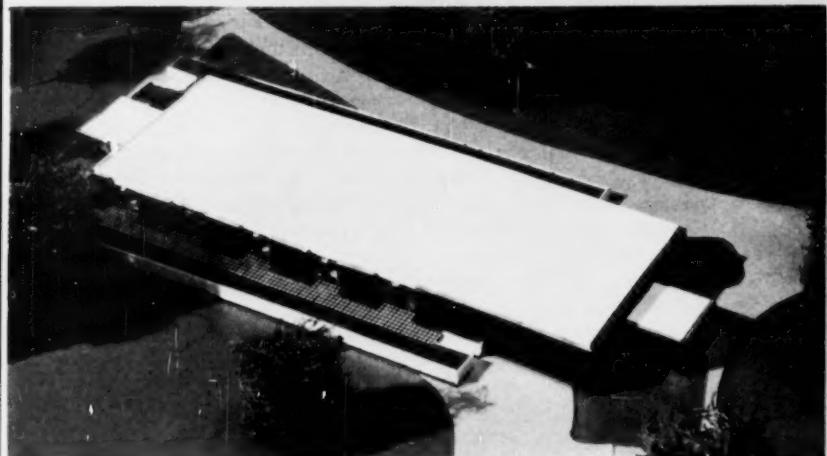
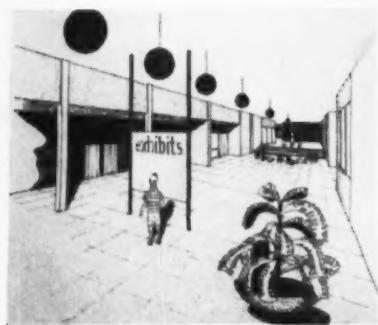
Thus, it is apparent that shelter space would present a distinctly new environmental experience for the school child. Under confined conditions, it would be necessary not only to protect the occupants from radiation hazards but to provide for essential physiological and psychological needs. Some of these special problems will now be discussed.

(Cont. on p. 66)



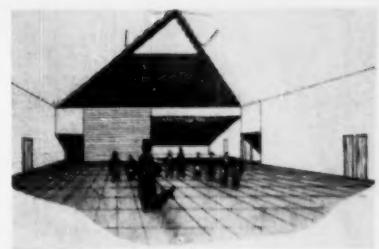
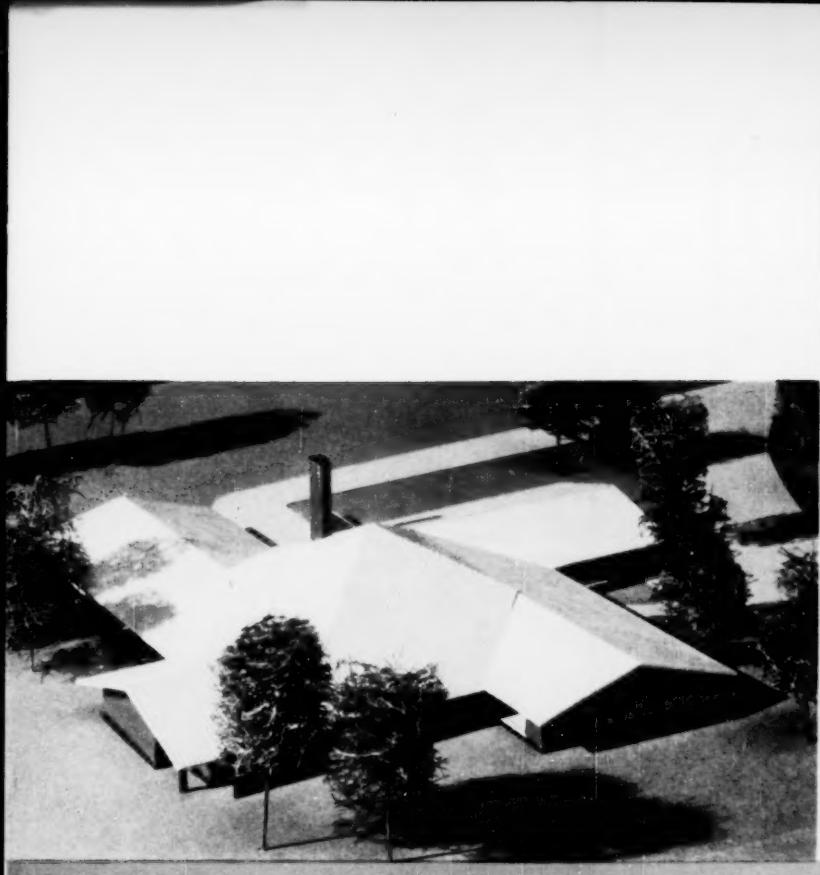
NEW SCHOOL (BASEMENT SHELTER)

CASE 1 STUDY



Key to Floor Plans

NORMAL USE: (1) classroom, (2) primary classroom, (3) future classroom, (4) multipurpose room, (5) platform, (6) general activity, (7) boys, (8) girls, (9) men, (10) women, (11) storage, (12) janitors' storage, (13) general office, (14) principal's office, (15) clinic, (16) teachers' room, (17) kitchen, (18) food service, (19) receiving, (20) mechanical equipment, (21) food storage, (22) cot storage. **SHELTER USE:** (a) general activity, (b) sleeping, (c) infirmary, (d) administration, (e) toilets, (f) food service, (g) waste disposal.

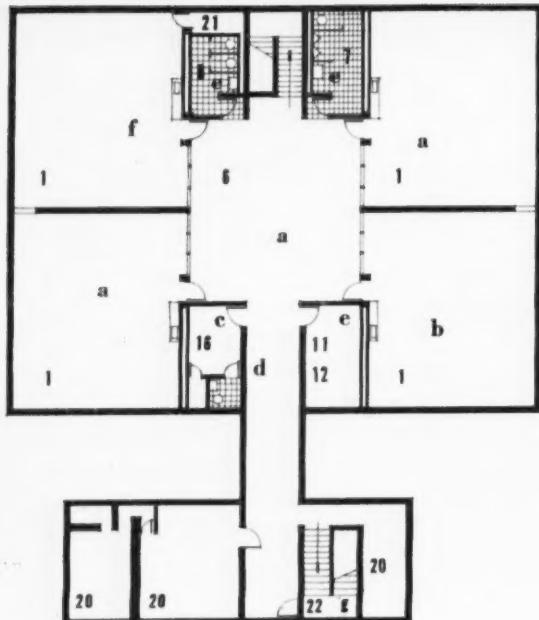


CASE 2 STUDY

NEW SCHOOL (GROUND LEVEL SHELTER)

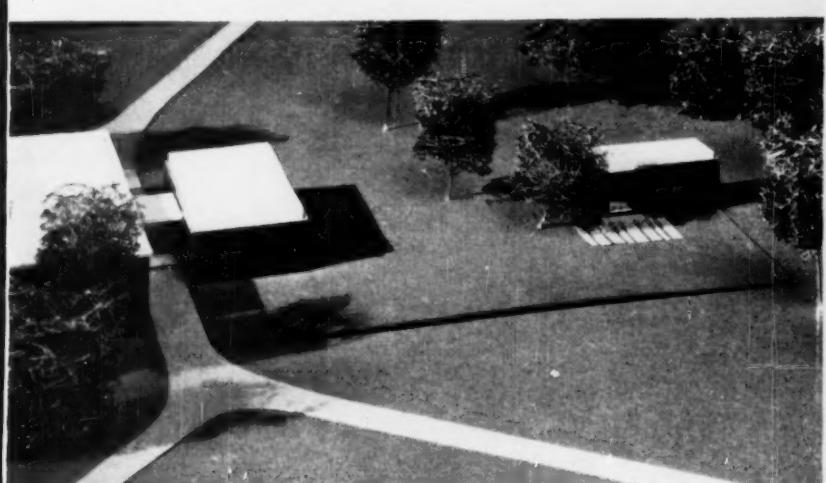
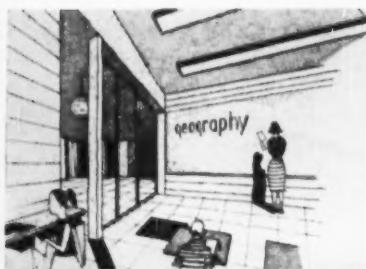
EMPHASIS WAS GIVEN in this plan toward making long occupancy spaces as pleasant as possible, because the elementary school child spends almost his entire day in a classroom. All are provided with natural light, view and direct access to the outdoors. The sheltered portions of the building are confined to the multipurpose room and certain auxiliary, administrative and circulation spaces that are grouped at the center of the plan, easily accessible from each of the four classroom clusters. A school shelter of one-story design would have a number of the standard educational advantages of such construction. In addition, there would be, in certain localities, advantages to building without basements, thus alleviating foundation problems. The initial size (12 classrooms plus multipurpose room) and expected addition (four classrooms) assumed for this school make it identical in population requirements (500 occupants) to Case Study School No. 1. The net area per shelter occupant is 10.2 square feet.





FOUR CLASSROOM ADDITION TO EXISTING SCHOOL (Underground Shelter)

CASE **3** STUDY



Key to Floor Plans

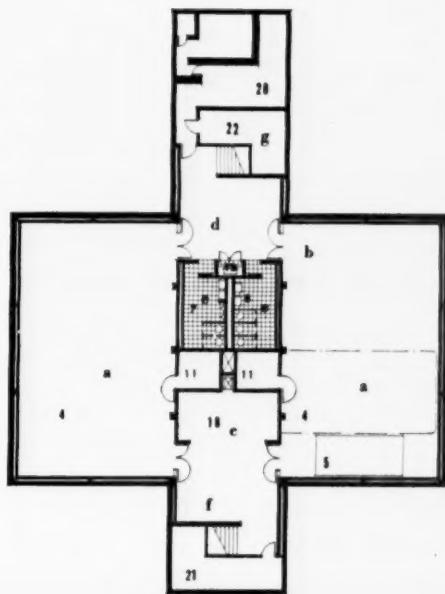
NORMAL USE: (1) classroom, (2) primary classroom, (3) future classroom, (4) multipurpose room, (5) platform, (6) general activity, (7) boys, (8) girls, (9) men, (10) women, (11) storage, (12) janitors' storage, (13) general office, (14) principal's office, (15) clinic, (16) teachers' room, (17) kitchen, (18) food service, (19) receiving, (20) mechanical equipment, (21) food storage, (22) cot storage. **SHELTER USE:** (a) general activity, (b) sleeping, (c) infirmary, (d) administration, (e) toilets, (f) food service, (g) waste disposal.



CASE 4 STUDY

MULTI-USE ADDITION TO EXISTING SCHOOL (Partially Underground Shelter)

THIS UNIT is to round out the facilities of an existing elementary school presumed to contain 12 classrooms. A shelter population of 375 persons would be provided with a net area of 12.3 square feet for each occupant. The greatly diversified activities of the present-day elementary school have led to increased use of multipurpose facilities. In fact, it was found that the multipurpose room is often the most overworked space in the school. Frequently the requirements of the hot lunch program make this space unavailable for educational purposes for several hours at midday. Indoor play space is particularly in demand in inclement weather, and the advent of AV-TV teaching techniques has made assembly rooms of increased importance. It was concluded that two multi-use rooms (one for dining; one for active games) would be most useful during normal operations. These two rooms, which are divided by a two-level service core, also adapt easily to the split-shift schedule of emergency operation.



PROTECTION CONSIDERATIONS

The myriad particles carried aloft by a nuclear explosion will drift with the wind and slowly descend, perhaps hundreds of miles from their origin. These particles, dangerous until their radioactivity decays, require radiological instruments to determine their degree of danger, for often they are invisible and cannot otherwise be detected. A brief exposure to them may cause serious illness. An extended exposure could cause death.

At a time of enemy attack, principal target areas such as our major cities face added jeopardy from blast and heat, but even within the scope of nuclear warfare, total destruction is a risk to relatively limited areas. More extensive is the peril of fallout, a danger that varies with the size and type of nuclear explosion and its relation to the surface of the earth, as well as the speed and direction of the wind. Even the remotest communities of the United States cannot be considered free from the hazards of lethal fallout.

To gain protection there are three principal methods: evacuation, decontamination and shelter. Each technic has useful aspects and each has its place in a balanced program, but authorities have come to place special emphasis on fallout shelters as the means of providing the greatest protection for the greatest number of citizens. Planning for such shelters in conjunction with new school construction is the subject of special emphasis in this report.

A warning period that could help citizens to reach shelter safely is provided by the fact that, after a nuclear explosion, fallout is carried by the winds and descends slowly to earth. Governmental agencies, utilizing radiological monitoring and weather forecasts, would be able to alert the public to impending danger. At such a time, life depends on knowing where to go, what to do, and what constitutes adequate shelter.

Careful studies have revealed that a large proportion of our population could be virtually assured of survival if adequate shelter were available. This generally is estimated to require a protection factor of 1000, which means that inside such a shelter a person would receive only 1/1000 of the amount of radiation he would absorb were he outside. Major protection is achieved by the interposing of a material thickness considerably in excess of normal building construction between the sheltered spaces and the surrounding unprotected areas. Such construction is the best insurance against the risk of fallout.

Protection of children always has been a duty of the teaching profession that parallels educational responsibilities. Who can number the thousands of children saved by the following of such protection programs as fire drills, safety patrol, and first aid? In an era faced with the continuing threat of nuclear attack, every school child should be taught the simple rule, "Take Cover!" However, unless shelter is close at hand, the warning is inadequate.

A fundamental precept of the school shelter idea is that regular day-to-day life within such a facility would be as school days ought to be everywhere — busy, pleasant and productive. It is impossible to disregard, however, the awful danger these structures were meant to circumvent. What might it be like on the bewildering day when the sirens scream and well drilled routine propels pupils and teachers to shelter? What might happen when the sound of the sirens dies away and the prospect of two weeks of confinement and isolation is there to face?

No one knows all the answers, but it is apparent that the prospect demands thought, planning and preparation. When disaster strikes, survival depends both on what facilities are immediately at hand and what individuals are trained and ready to do.

It is probable that adequate warning will permit persons to enter the shelter unharmed by fallout. Thus, the focus of thought and planning should be on maintaining good health, both physical and mental. Not only must a school shelter facility be immediately convertible to shelter use, but also it should be operable and habitable as a completely independent entity for a period of approximately two weeks.

At a time of dire national emergency requiring shelter occupancy, it may be assumed that such ordinary services as telephones, water supply, sewage disposal, fuel supply, and food services would not be functioning. Further, it

may be assumed that it would be inadvisable for anyone to leave the shelter for any reason during the emergency period. Under these circumstances, special consideration will need to be given not only to radiation shielding, but to provision of nourishing food, pure water, fresh air, sufficient space, power supply, rest and sleep, disease control, morale activities, and administrative organization.

SPACE

While space allotments as small as 6 square feet per person have been used for short-term occupancy of bomb shelters, a large group should not be subjected to an extended period of such confinement. The Office of Civil Defense Mobilization believes that, for the periods of shelter occupancy assumed to be possible, a space of 10 square feet net area per person is the minimum acceptable.

Each of the case study schools exceeds this minimum net space allotment, which suggests that flexibility exists to permit the possible accommodation of some parents, neighbors and preschool children. The contemporary trend toward flexible teaching space happens to simplify adaptation of elementary schools for shelter purposes.

At the beginning of an emergency period, it is assumed that teaching spaces would be emptied of unnecessary furniture. A possible exception would be the food serving area, where portable classroom desks would be retained. A classroom of normal size and shape will, with appropriate changes of equipment, provide sleeping space for up to 180 persons, eating space for 90 persons, and general activity space for 60 persons. A multipurpose room could be partitioned to provide equivalent spaces.

SHIELDING

Determination of the degree of radiation protection provided by shelter construction involves complex computations and is a job for architects and engineers in cooperation with radiation consultants. In general, however, protection is accomplished through increasing the mass or material thickness of walls and ceiling construction.

Radiation intensity is substantially reduced as it changes direction. For example, stairs and hallways with at least two right angle turns will markedly reduce the danger from open entranceways. Some use can be made of temporary barriers to increase the safety of improvised shelters, but it is inconceivable that, within the anticipated warning period, an entire school population could be completely protected by hastily erected materials.

FOOD

It would not be possible to continue meal service in normal patterns during shelter occupancy. Regular food supplies would be unavailable and the kitchens would, in most cases, not be operable. Rather, nourishment would be furnished by prepacked food rations, storage for which would require approximately 2 cubic feet per person, assuming a two-week occupancy.

It is believed desirable psychologically that school age children be kept on a normal schedule of three meals a day and that a semblance of familiarity in foods be retained through use of cooled reconstituted milk.

WATER

Because of the possibility of radiological contamination of water and the interruption of utilities in an emergency situation, it is essential that a reliable source of water be planned. Survival of shelter occupants probably would be possible with as little as 1 gallon of drinking water per person per day, but 2 gallons would be a more tolerable provision.

Keeping the proposed quantity of water fresh and uncontaminated would

ELECTRIC POWER

require special storage arrangements. A well should be developed on the school shelter site since well water is the least vulnerable to contamination by fallout. In situations where wells cannot be developed, surface sources, although subject to contamination, can be used for such purposes as sanitation, air cooling, and the cooling of the engine-generator.

SLEEP

Although the shelter occupants can sleep on the floor if provided with blankets or sleeping bags, the use of triple-tier bunks will permit sleeping facilities for up to 180 persons in a single classroom. Following a 12 hour split-shift schedule, one room could thus provide accommodations for 360 persons a day. Bunks or other devices would need to be stored within the shelter area and be of a type that could be set up by an unskilled staff.

VENTILATION

Ventilation must be planned to provide suitable air purity, temperature and humidity. In order that suitable oxygen and carbon dioxide limits be maintained, the air circulation should provide a minimum of 3 cubic feet of fresh air per minute per person through the use of standard commercial filters. Activated carbon purifiers will remove odors from recirculated air.

One of the most vital aspects of establishing a habitable environment under the crowded and confined shelter conditions is that of temperature. If practicable, the dry bulb temperature should be maintained between a minimum of 67 F. and a maximum of 85 F. If the humidity in the shelter is high, it is essential for the health of the occupant that the dry bulb temperature be maintained well below 85 F. Even in cold climates, air cooling probably will be necessary under the congested conditions of the shelter.

SANITATION

It is imperative that rubbish and human wastes be disposed of properly. During an emergency period, when utilities may not be functioning and ordinary disposal methods are impossible, sanitation presents difficult problems. In most shelters, the population would be so much greater than normal that the ordinary number of toilet fixtures would be inadequate. Even if a water supply is available, it is probable that additional temporary toilets would be needed. The number recommended is one for each group of 35 shelter occupants.

Although various types of portable chemical toilets are available, the simplest equipment is the plastic container that can be emptied into a sewage-ejector wet well, wastes thereby being expelled outside the shelter. Such a device could also serve for disposal of shredded garbage. Paper, rubbish, cans and so forth and would be stored within the shelter for the duration of the occupancy.

The primary requirement of a shelter facility is the maintenance of the good health of the occupants, a vital aspect of which is the control of disease. In part, such control is accomplished by sanitation and ventilation, but it also entails first aid and isolation of communicable disease.

For emergency use as the shelter infirmary, it would be necessary to convert a space with its own toilet facilities. It is expected that within a two-week period approximately 5 per cent of the occupants would require isolation and/or continued bed rest, which suggests an infirmary capacity of approximately 2 per cent of the occupancy. Because of limitations both of staff and physical plant, it is assumed that serious cases of physical or mental illness would receive little care that is diagnostic or therapeutic; rather, it would be merely supportive.

DISEASE CONTROL

A training program of preparation for shelter occupancy would drill school children in protection technics and teach them to comprehend a disaster situation. Thus, it is anticipated that most persons entering fallout shelters would not have suffered prior psychic trauma. Most emotional problems would be caused by the confinement, overcrowding, rationing of food and water, monotony and possible separation from families.

Children are emotionally resilient, and most will prove adaptable. It is estimated, however, that from 4 to 8 per cent may suffer major emotional upsets — aggravations, for the most part, of normal instabilities. Such reactions can have a communicable effect, and special provision should be made for isolation and care of these individuals.

Less strong disturbance among a large number of children may take the form of irritability or acts of aggression. There are advantages in retaining, where possible, the existing school pattern of group relationships and activities. This suggests the desirability of several separated groups within a single shelter.

Probably the best morale activity during a two-week shelter occupancy would be a normal educational system, but such a program would be impossible to maintain. Even using a double shift, with half the occupants sleeping while half are awake, the typical sheltered classrooms probably would be filled to more than double normal occupancy. This crowding, coupled with the day-long schedule of shelter confinement, implies extraordinary demands on teacher capabilities, and suggests increased use of large group activities.

An important part of a shelter program would be recreation, active and passive. Children of elementary school age have an essential urge to move about. An unobstructed space should be provided where groups of children can, for short periods of time, participate in active play. Similarly, passive recreation equipment must be provided to make a two-week confinement endurable.

MORALE

An important advantage of the school as a shelter is its existing administrative setup, many aspects of which could be adapted to shelter operation. It is assumed that, in most cases, the school principal or his delegate would serve as shelter manager.

For his role, the manager needs some prior training, and his planning should be done cooperatively with state and municipal civil defense officials. He will need to establish a daily schedule of activities, and then assume or assign his adult staff responsibility for such needs as: (1) radiological monitoring, (2) communications, (3) feeding, (4) sleeping, (5) sanitary services, (6) disease control, (7) maintenance of utilities, and (8) morale.

A space will be required from which to direct these operational assignments, a telephone and radio receiver for communications and an area for radiological monitoring. For control purposes, it is desirable that there be some compartmentation of shelter areas, but staff members never should be completely isolated. At the time of such a major crisis, there would be strong need of mutual staff support.

For schools desiring more information, O.C.D.M. offers a technical manual, construction drawings, and detailed costs estimates from this study.

ADMINISTRATION

MORE THAN 2200 persons registered for the five-day school business officials convention in Miami. Former President Robert W. Shafer (smoking a pipe) is seated in left foreground.



HONORARY LIFE MEMBERSHIP is presented to Ed. P. Williams (center), 1952 A.S.-B.O. president, who receives congratulations from President Percy M. Muir. Seated is Vice President Herschel S. Brannen.



DR. JOE HALL, superintendent of the Dade County school system, welcomes business officials to south Florida, the land of the palms, "royal, coconut and outstretched."

NEWLY ELECTED A.S.-B.O. director is Herman C. Bleekschmidt, assistant superintendent of Normandy School District in suburban St. Louis.



NINE PAST PRESIDENTS were guests at the directors' luncheon.

STANDING: (l. to r.) Frederick W. Hill, director; Everett Zabriskie, director; C. W. Foster, executive secretary-treasurer; Gray N. Taylor, director; John W. Lewis (1940); Percy M. Muir, president; Herschel S. Brannen, vice president; J. Harold Husband, executive committeeman (1958); Schuyler C. Joyner (1954); Joseph P. McElligott, director.

SEATED: (l. to r.) Frank J. Hochstuhl Jr. (1955); Robert W. Shafer (1947); Francis R. Scherer (1950); Sam S. Dickey (1953); Ed. P. Williams (1952); G. Alvin Wilson, president-elect; Andrew C. Hutson Jr. (1957).

A.S.B.O. convention 'got down to cases and provided real inspiration' for school business officials professing belief that competent

Business Management Improves Education

MIAMI BEACH. — Possibly the most plush of its 45 annual meetings, the 1959 convention of the Association of School Business Officials of the United States and Canada saw approximately 2500 delegates and guests housed in the palatial Hotel Fontainebleau and 14 other ocean oriented resort hosteries of hardly less renown.

Delegates took time out for the annual exhibitors' entertainment, for inland waterways cruises, and for the "aquarama." Many sampled the sandy beaches and swimming pools, strolled amidst the colorful profusion of tropical flora, and craned their necks to the stately palms.

The conventioners also spent a half day touring Dade County schools.

During convention week the international character of the association was stressed. Canadian colors were posted alongside those of the United States, and members of both countries sang "God Save the Queen," and "America." Two Canadians, appointed by Canadian President Percy M. Muir, headed the important resolutions and by-laws committees, and a fellow countryman delivered one of the three major addresses.

The multiracial nature of the membership also was demonstrated by the admission of qualified Negro delegates to meetings and social functions. Orientation suggestions were included in the welcoming remarks of Supt. Joe Hall, Dade County school system.

Convention 5 Star

During convention week the business officials, in assembly or through their board of directors:

1. Advanced President-Elect G. Alvin Wilson to the presidency and named other officers and directors, effective January 1. Mr. Wilson is assistant superintendent, business admin-

istration, Oak Park-River Forest High School, Oak Park, Ill.

2. Voted to go from a hotel format to an auditorium style convention beginning in 1962, when the association will meet in Dallas, October 14 through 18. Reconfirmed other convention sites as follows: 1960 (golden anniversary convention), Hotel Chase-Park Plaza, St. Louis, October 9 through 13; 1961, Royal York Hotel, Toronto, October 8 through 12.

3. Resolved to petition the federal government to strengthen the staff of the U. S. Office of Education to enable it to intensify its research in school equipment and supplies.

4. Amended its by-laws to create an "emeritus" membership for members who, after at least 15 years of active membership, have left school business, or who have retired. This membership is nonvoting.

5. Received a report from its organization, functions and procedures committee recommending changes in the structure of the board of directors and referred it for study to 1960 board members.

Interorganizational relations were stressed. In addition to including speakers from related disciplines on section meeting programs and panels, members met jointly with representatives of the National Organization on Legal Problems, the Educational Facilities Laboratories, Inc., the National Council on Schoolhouse Construction, the National School Supply and Equipment Association, and the School Facilities Council.

Another innovation was the allocation of space for professional displays of the American Association of School Administrators, American School Food Service Association, U. S. Office of Education, Dade County school system, and the U. S. Social Security Ad-

ministration. Also, there was a "showcase" of sample forms, blanks and materials used in school personnel work.

Professionally Oriented

"Business Management Improves Education" was the convention theme and "There's no business like school business" was its slogan.

Sustained by liberal helpings of fruit juice supplied gratis by the Florida Citrus Commission, the delegates regularly attended the 19 section meetings and discussion sections to which more than 100 speakers and panelists contributed over a three-day period. Explored were problems in finance, maintenance and operation, personnel, purchasing and warehousing, schoolhouse planning and construction, food service, pupil transportation, and related subjects.

Continued was the highly successful and popular clinic, which provided an opportunity to seek answers from experts seated at any one of the 36 tables assigned to problem areas in school business administration.

(Continued on Page 92)

Photo by Toloff Studio, Oak Park, Ill.



G. ALVIN WILSON, Oak Park, Ill., is the 1960 president of A.S.B.O.

**Survey of practices vindicates professional
viewpoint on who makes policy and who administers schools.**
Boards and superintendents across the nation agree on

Responsibilities for the School Administrator

RUSSELL T. SANFORD

Director Market Research, The Nation's Schools

Occasional rumblings are heard to the effect that school boards usurp the rightful authority of the school administrator. Wherever such allegations are fact, a dangerous situation exists, a situation inimical to education as a whole since it suggests the supremacy of amateur judgment in professional areas.

The research department of The NATION'S SCHOOLS recently undertook to determine the extent to which professional administration of school business affairs is impinged upon by lay board members. During the summer of 1959 the magazine sponsored two studies conducted by Professional Markets Research, Chicago. The studies, both concerning board member activity, covered such matters as the tenure of school board members, their background and school related interests, their gainful employment, their use of time on school affairs, understanding of their responsibilities, the extent of their preparation for board meetings, their participation in preparing budgets, in product appraisal, and in product selection, and their involvement in the procedures of school business.

One study was made among board members, a second among school administrators. There was a high correlation in essential answers between those from administrators and those from board members. Within the extremely narrow range of divergence, very possibly lies the truth.

When asked who draws up the school budget, by items needed and estimated costs, 97.3 per cent of the 578 participating school board members attributed this function to the administrator and his staff, and 83.7 per cent mentioned no one else. Adminis-

trators, asked the same question, named themselves and their staffs in 93 per cent of the 912 replies. Board members mentioned themselves as budget makers in only 7.2 per cent of the replies, and only 1.4 per cent exclusively. Administrators mentioned board members in 4.3 per cent of the replies, only 0.3 per cent naming no one else.

Asked who originates purchases (pointing out the need for other than routine supply items), 99.3 per cent of administrator respondents and 99.1 per cent of board members named the

Table I—Board Members' Appraisal of Their Major Functions

	Total Mentions
Policy making	221
Maintaining a school serving the best interests of the community	93
Assisting and cooperating with the administrator	90
Providing the best education possible within budget limitations	78
Choosing and backing a capable administrator	56
Choosing a competent teaching staff and other qualified personnel	55
Curriculum study and improvement	54
Financing	51
Maintaining good public relations with the community	50
Facilities	19
Budgeting	17
Construction	9

Reprints of this article are available.
Address The Nation's Schools, 919 N.
Michigan Ave., Chicago 11.

administrator and his staff. Administrator and staff were mentioned exclusively by 93.6 per cent of administrator respondents and by 89.1 per cent of board members.

Another inquiry probed the question of responsibility for comparing, appraising and testing makes of products needed. Administrator and staff were mentioned by 95.6 per cent of administrators answering, and by 98 per cent of the board members. Exclusive mentions of administrator and staff were given by 85 per cent of administrative respondents, and by 86.2 per cent of board members.

Here, in three related activities, it becomes evident that the school board overwhelmingly leaves these important business decisions related to budget and purchasing to the professional administrator and his administrative staff.

Approve Product Selections

Another question, put to board members only, concerned board approval of the administrator's product selections. The question was: "When recommendations for purchases are submitted for board approval, do you ordinarily accept the type or brand recommended, with explanation, by the administrator?" Of board member participants, 96 per cent answered Yes. To the further question, "If items originally recommended are not approved, does the board ask the school administrator to make further recommendations?" 97.8 per cent of the responding school board members said Yes.

These answers might be construed as meaning that a great many boards perform a "rubber-stamp" function. However, in the light of answers to the previous three questions, it appears that the board actually does employ a professional administrator in whom it has confidence and leaves to him virtually all major product buying decisions.

Board Confirms Decisions

It must be remembered that the school district is a unit of government and the governing body is the school board. Approval by the school board for purchases in excess of a stipulated minimum dollars is universally a legal requirement. Thus, school board members, if asked without qualification if they "participate" in purchases may reasonably and truthfully say that they do. However, as shown in this survey, their "participation" is principally making official the decisions of the administrator and his staff.

Tables 1 and 2 are significant in showing the school related interests of school board members and their understanding of their functions, as reported by board members themselves. It becomes evident from these tables that board members give most of their attention to the areas of education in which they can express the will of the community as to the kind of education and the kind of schools that will best serve educational purposes. Board members express great interest in curriculum, in getting good teachers and good schools, and in finance.

One other interesting aspect of the study is the wide range of occupations of board members. Among 578 school board members, each representing a different school district, 34 identifiable professions were represented by 123 respondents. There were 29 bank executives and employees; 100 farmers and ranchers in nearly all branches of agrarian activity; 77 widely diversified retail merchants. There were 32 skilled and unskilled laborers from a range of industries, and 22 civil service and other government employees; there were 51 housewives and an equal number of major and minor manufacturing executives. Only 15 professional educators were board members, mostly teachers or college instructors and professors. The remainder of those participating were spread over a range of jobs not readily classifiable. Only 93 reported ever having been professional educators.

The composition of American school boards parallels in range, though not in distribution, almost any cross section of the public and, with few exceptions, board members have little background or experience to qualify them specifically for school administration. It is only natural, therefore, that they refrain from active management of the schools beyond that within the defined range of their duties.

Another fact brought out in the study is that the school board in America is a changing group. The average term of office of a board member is 3.7 years, with a range of from 2 to 6 years. Board members actually serve an average of 6.6 years, with a range

Table 2—School Related Interests of School Board Members

RANK →	NUMBER ASSIGNING RANK												Total
	1	2	3	4	5	6	7	8	9	10	11	12	
Curriculum	231	132	57	40	30	22	18	7	4	3	1	0	545
Teachers' qualifications	150	179	70	41	15	18	17	8	8	0	3	0	509
Finance, appropriations	128	68	68	54	43	45	35	33	20	11	5	4	509
Schoolhouse construction	61	64	54	60	55	39	45	40	22	23	11	8	482
Community relations	58	45	64	68	77	64	43	21	27	23	10	3	503
Teachers' salaries	31	67	135	109	86	44	21	7	8	2	1	0	511
Utilization of plant	22	24	41	44	48	55	64	60	38	29	14	7	446
Classroom and instruction equipment	17	35	63	47	56	53	53	43	46	21	7	2	443
New equipment purchases	14	10	17	22	16	28	37	51	66	98	50	14	423
Noninstructional salaries	6	18	14	20	34	48	52	70	53	40	29	14	398
Product brand selection	5	8	17	6	2	6	5	12	19	31	73	164	348
Routine purchases	4	8	24	6	14	13	9	22	43	58	112	62	375

of from 1 to 39 years among those reporting. The median length of service for school board members proved to be 5 years.

Thus, it is apparent that the average annual turnover in U.S. boards of education is between 16 and 20 per cent, since the average board consists of 6 members (the range is from 3 to 35 members). Possibly because the average board of education is a wholly new group every 5 to 7 years, board members can scarcely accumulate the experience required for active participation in the actual management of the schools, even if they were so inclined and had the time.

Another factor in the performance of school board members in accordance with accepted standards is the source of their indoctrination into their duties. The 578 board members re-

porting on their sources of information on school board duties gave a total of 1406 mentions to various sources: 440 mentioned other board members; 390 mentioned the school administrator, and 360 mentioned a manual for board members.

Who Informs School Boards?

The consensus of 912 school administrators reporting on this subject was somewhat different, as might be expected from a group asked to speak for another group. Of these, 873 believed the administrator to be the chief source of information for members of the school board, while 44 mentioned other school board members in this connection.

The monthly meeting is almost universal among school boards, with board members (administrators were

not asked this question) reporting that the average board meeting lasted an average of 3½ hours, with a range of from 1½ to 6 hours.

Board members also reported devoting an average of 10.6 hours per month beyond the scope of board meetings to school matters. The 524 reporting on the use of this additional time mentioned conferences, conventions and meetings with other than board members 224 times.

Inspecting school property was reported by 108 respondents, while 92 mentioned study, reading and gathering information. Such activities as inspecting, planning and discussing new buildings and sites, committee work and meetings, visiting schools and holding conferences with administrators, and preparing reports were

(Continued on Page 118)

Table 3—Who Selects and Recommends Specified Products (by Make or Brand)

ADMINISTRATORS' REPLIES

	Administrator and/or Staff	Board Member	Architect	Other
Shop equipment	819 (89.8%)	30 (3.3%)	50 (5.5%)	101 (11.1%)
Textbooks	864 (94.7%)	1 (0.1%)	2 (0.2%)	90 (9.9%)
Lighting fixtures	608 (66.7%)	105 (11.5%)	467 (51.2%)	32 (3.5%)
Classroom seating	891 (97.7%)	94 (10.3%)	48 (5.3%)	26 (2.8%)
Movie projector	882 (96.7%)	11 (1.2%)	3 (0.3%)	41 (4.5%)
Cafeteria equipment	776 (85.1%)	96 (10.5%)	244 (26.7%)	83 (9.1%)
Buses	557 (61.1%)	256 (28.1%)	8 (0.9%)	114 (12.5%)
Business machines	866 (94.9%)	49 (5.4%)	3 (0.3%)	50 (5.5%)
Gymnasium equipment	855 (93.7%)	49 (5.4%)	80 (8.8%)	83 (9.1%)
Heating equipment	562 (61.6%)	229 (25.1%)	550 (60.3%)	29 (3.2%)

% = per cent of number answering (912)

BOARD MEMBERS' REPLIES

	Administrator and/or Staff	Board Member	Architect	Other
Shop equipment	513 (88.7%)	38 (6.6%)	47 (8.1%)	36 (6.2%)
Textbooks	552 (95.5%)	13 (2.2%)	0	28 (4.8%)
Lighting fixtures	277 (47.9%)	77 (13.3%)	342 (59.2%)	21 (3.6%)
Classroom seating	516 (89.3%)	65 (11.2%)	72 (12.5%)	8 (1.4%)
Movie projector	542 (93.8%)	34 (5.9%)	4 (0.7%)	11 (1.9%)
Cafeteria equipment	419 (72.5%)	71 (12.3%)	186 (32.2%)	19 (3.3%)
Buses	288 (49.8%)	202 (34.9%)	2 (0.3%)	34 (5.9%)
Business machines	535 (92.6%)	64 (11.1%)	2 (0.3%)	17 (2.9%)
Gymnasium equipment	510 (88.2%)	57 (9.9%)	66 (11.4%)	34 (5.9%)
Heating equipment	246 (42.6%)	135 (23.4%)	345 (59.7%)	19 (3.3%)

% = per cent of number answering (578)

OPINION POLL

WHEN the question of "overemphasis" on high school varsity athletics is put to them, school administrators find their ranks split almost straight down the middle.

The great response prompted by this month's opinion poll question finds 48 per cent testifying that varsity football in high school is overemphasized, and 45 per cent sharing this opinion about basketball.

Some cite the amount of time devoted to athletics as an area for concern. Said an Indiana superintendent: "Administrative time allotted to athletics and academic studies is way out of proportion in favor of athletics."

"The danger lies," declared another schoolman, "in overemphasizing athletics to the point where they take up school time that students should spend on studies!"

Many felt that the amount of money being spent for athletics is not justified in relation to the number of students being benefited. Voicing the consensus of this group, a New Yorker proposed: "We need more physical education and less varsity athletics. A well rounded physical education program, providing participation for all, . . . should be of first consideration, especially when there is not enough money to do both jobs satisfactorily."

From the Hoosier state comes the comment: "We are very much in favor of competitive athletics, but on a much less commercial basis."

"Athletic activities are very worthwhile and desirable," added a Massachusetts superintendent, "but too often the number of contests and the premium on winning are overdone."

Overemphasis on Football

Most administrators who differentiated between overemphasis on football and on basketball believe football to be the more common area of overemphasis. One such respondent was a Texan who maintained that the "concomitants of football — pep squads, drum and bugle corps, extra band outlay, costumes, expensive equipment, awards for certain of these groups — have elevated and aggrandized this sport beyond its rightful station in the educational scheme."

Some superintendents who found emphasis on basketball most objectionable pressed for limiting the number of games to one per week, and not on a school night.

Too Much Emphasis

on High School Varsity Athletics?

1. Is high school varsity athletics overemphasized:

for football?

Yes — 48% No — 49% No opinion — 3%

for basketball?

Yes — 45% No — 51% No opinion — 4%

2. Do you favor organized athletic contests for elementary school children, such as Little League baseball?

Yes — 50% No — 49% No opinion — 1%

3. Are state basketball tournaments too strenuous for high school students?

Yes — 41% No — 54% No opinion — 5%

Based on a 4 per cent proportional sampling of all school administrators in continental United States, this survey brought a 54 per cent response.

Qualifying comments from both sides of the issue charged "school officials in individual systems" with the "responsibility for maintaining the necessary balance between athletics and the educational program as a whole." A few administrators supplemented their votes with opinions that "less and less emphasis is being placed on sports" (California), and "the majority of educators are trying to control this overemphasis" (Georgia).

Though the slim majority agreed that high school varsity athletics is not overemphasized, it is interesting to note that few administrators supported this opinion with comments. In support of his negative vote, a Minnesota superintendent commented: "The interest in high school athletics deplored by some is merely a reflection of the attitude of our whole society. It may be that this alleged overemphasis is not as great or as bad as it may seem. Mankind needs physical and emotional outlets."

A Pennsylvanian suggested that "athletics, like other extracurricular activities, is an essential part of our over-all educational pattern. Without some of these outlets we would have other serious problems with children."

Another near equal division of opinion was registered on the topic of organized athletic contests, such as Little League baseball, for elementary school children. Fifty per cent favored such contests, 49 per cent did not.

Many superintendents thought that "a good summer program of recreation should be sponsored by the school or some civic group." Others, while favoring an athletic program during the summer, stressed "proper management" and indicated that "careful plans should be made to alleviate, as much as possible, adult pressure on children."

An Idaho schoolman does not favor a "competitive program for the elementary school." Some others agreed with him and believed that "much value might be gained from Little League if the factor of interschool competition were not present."

Favor Basketball Tournaments

State basketball tournaments are not too strenuous for high school students, according to 54 per cent of the superintendents polled this month. But, some of them added that they have a tendency to disrupt the regular school program.

Whereas some superintendents feel that basketball tournaments are not too strenuous if no more than one game per day is played, many believe that they are too strenuous because often two games are scheduled for one day. A North Carolina administrator regretted so many play-offs and tournaments prior to the state competition and a New Yorker flatly stated: "After five months of basketball, the season should end without tournaments." ■

**Rural educators enjoy Western hospitality
at annual convention. Four hundred delegates
and speakers seek**

QUALITY FOR RURAL SCHOOLS

MILDRED WHITCOMB

SEATTLE. — While no longer confined to geographical areas where school kids are scarcer than cows, rural education is a separate entity still. A newer type of rural education is called "rurban." It flourishes where the cow pasture has given ground to thousands of "ranch houses," and where animal husbandry, while spectacular, is strictly for the bipeds.

On the shores of Puget Sound, October 23 to 28, the N.E.A. Department of Rural Education and the Division of County and Rural Area Superintendents consecutively pondered, argued and sometimes demonstrated ways to introduce the *quality of excellence* into the school program of rural and small communities. They didn't worry much about the disparate sizes of their school populations, or whether the senior class has six or 100 students. Their main concerns were these:

How're you going to keep 'em (good teachers) down on the farm? How're you going to retrain older teachers to use gladly and profitably the splendid machines and materials now available to them through N.D.E.A.'s Titles III and V? How're you going to prepare public and staff to embrace consultant services? How're you going to widen teacher horizons so that, through their influence, our people will "leap governments" to strengthen international friendships and to help develop the world's underdeveloped peoples?

Plenty of Color

Always warm and colorful, Western hospitality spilled over the meager 400 persons who had made the extralong journey to the conventions. Washington had expected 1100 and had provided filberts, apples, cone corsages, and fun in abundance. There were tours to The Mountain (Rainier, of course), a cruise on Lake Washington

in 47 private craft, a salmon barbecue, and a journey to a 707 jet plant. (At Boeing's they are working now on the 720, a commuter jet that will make tiny runs from New York to Chicago and from Chicago to Denver.)

The hostesses and hosts were gay in costumes as well as conduct. The Washington women superintendents wore circular felt or cotton skirts with appliqued or handpainted symbols of their localities — pine cones, apple orchards, daffodils, grand or lesser coulees, wheat fields. The braver of the men superintendents sported handpainted ties, a tall Douglas fir on a white ground.

Supt. Mary C. Pierce of Adams County, Ritzville, strutted a future museum piece. Around the wheat elevators and evergreens of her voluminous skirt she had built a calligraphic fence. The front panel bore the autographs of Governor Rosellini, national school leaders, and government representatives. Her own county folk inscribed their names on a side panel. Other dignitaries and delegates took

up their pens until the jovial lady was hard put to it not to sit down on a VIP.

A fair measure of excellence and quality marked the programs. Notable were the addresses of Sen. Gale W. McGee (D-Wyo.) and Kenneth H. Hansen of Gunnison, Colo., and a dramatic enactment of a county superintendent's plight as citizens and taxpayers resisted an important new service. The dramatics were emceed by Carl Munson, guidance coordinator of the Seattle schools. A dozen county superintendents from near and far played the roles with riverboat zeal and with the conviction that springs from familiarity with dissident citizens.

Senator McGee, new in Washington, having been a professor of history at the University of Wyoming for 20 years, developed three ideas in regard to the teacher's role in the world scene. They were largely based on a recent trip to Russia.

"People are different" was his first idea. "We are not going to make little Americans out of everybody and we

(Continued on Page 106)

THREE CURRENT PRESIDENTS: W. W. Eshelman of the N.E.A.; Winston Brown of the Division of County and Rural Area Superintendents, superintendent of Waukesha County schools, Waukesha, Wis., and W. E. Bishop of Department of Rural Education, county superintendent, Englewood, Colo.



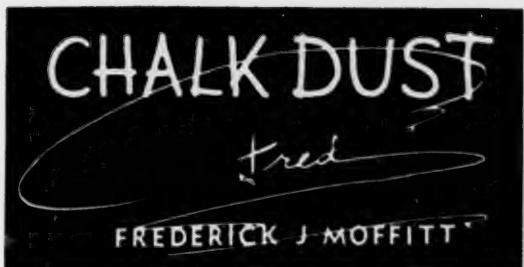
ADMINISTRATOR'S WARDROBE

ONE OF the most costly items in the personal budget of a school administrator is the maintenance, repair and replacement of his wardrobe. The rules and ethics of superintendology demand that an administrator shall be reasonably and substantially attired at all times, and must indulge neither in extravagant cravats nor in the more lively modern custom of baring the knees in public. This demand for conservative styling calls for a large and diverse wardrobe, including a football uniform to impress sports editors, an academic robe for the peculiar ceremonials at the nearest temple of higher learning, and a dinner jacket into which the superintendent can be shoe-horned when unexpectedly called on to toastmaster the visiting firemen at the Odd Fellows reception.

In addition to this miscellaneous apparel, the school head must also own, borrow or rent many more practical items of clothing because of the occupational hazards in connection with his job. The need for replacement is particularly serious. In combat with multitudinous citizens committees the superintendent, more often than not, loses his shirt. Meanwhile, at the meeting of the Junior Button Collectors Guild (an indispensable part of many modern school curriculums), those busy little collectors snip off sundry buttons until neither the superintendent nor the community is sure just how many buttons, if any, he is missing. In lieu of more substantial contributions his wife donates his ancient waistcoat to the current charity drive, and what little clothing he has left grows too tight because of other community pressures such as church suppers and clambakes.

But modern technology, sparked by the United States Army, is rushing to the rescue and tomorrow's school administrator may soon discard his old trench coat and look to the future with confidence that he will be adequately dressed. The army has now invented some brave new habiliments for its soldiers and a glance will show that this modern battalions is peculiarly fitted and suited to a school superintendent. The lifetime expectancy of the new material will greatly increase the lifetime expectancy of the superintendent. It is guaranteed to protect the wearer against small arms fire and nuclear explosions.

The new clothing has many further advantages. It includes a helmet of plastic laminate (a modern necessity for school administrators who, alas! must often supervise building construction rather than curriculums) containing a small radio antenna with sending and receiving sets. Thus, the administrator will



be able to answer his telephone, coach the football team, and orate at all teachers meetings. Of course, like other recent scientific advances, this may not be regarded as an unmitigated blessing by the teachers.

But behold! The best is yet to come. The most startling feature of the new attire is a special jump belt which, on pressure of a button, enables the wearer to jump from here to there. It will propel the proprietor a distance of 30 feet. Here is the ultimate dream of any school administrator. Nevermore need he be stranded on that much-feared spot which is the common fate of school administrators. In the twinkle of an eye he can change spots quicker than the proverbial leopard. Of course, there are some wise-agers who assert that this particular ability to get off the spots is already practiced by many administrators without benefit of rockets. But as Aristotle observed: "You can't please everybody all the time."

THE ANIMALS SCHOOL

IT WAS PAST time for the annual change of superintendents at the Animals School. True enough, the old Owl who had served as a pinch hitter for the Fox, who had replaced the Dodo, had done well enough, but the animal taxpayers were restless. They felt that the Owl was demanding too many clam shells and that his wife was too noisy and changed plumage far too frequently. "What we need," said the animals, "is a more conservative approach."

So they appointed a committee to draw up qualifications and to write to the dean of the nearest school of education, a sly old beaver.

"The modern school superintendent," replied the dean, "should be able to shoulder a heavy load of responsibility and stand up under plenty of heat. You do not need a flashy candidate or one with exceptional speed, but you ought to get a patient plodder who will go toward a goal that may be a long way ahead."

When the committee looked over the qualifications, they could find only one

applicant who filled the bill, and this was a Camel. The Camel had an excellent reputation for steadiness and sobriety and also happened to be first cousin to the dean himself.

Indeed, the Camel seemed to have every attribute commonly deemed desirable for a good school superintendent. He was decidedly cold blooded, his boiling point was low, and he ruminated and chewed whenever faced by any real decision. If a storm arose (and high winds were a daily occurrence at the Animals School), the Camel displayed an admirable habit of turning his south side to the tempest until it blew itself out; this, in itself, is evidence of ability in any competent school administrator. The Camel, too, was not looking for great financial rewards, and this endeared him to the committee. So he was promptly offered a contract.

Alack, however, as soon as the Camel took the job, it was quickly observed that he had a foot like an elephant and, worse yet, he had a habit of putting it in his mouth every time he opened the latter or spitefully kicked the innocent bystanders. In a word, he made no friends and influenced no enemies, and when the wind was in the wrong quarter (to put it euphemistically) he smelled, so his public relations was not good.

Unfortunately, too, he had a low way of spitting at members of the Animal P.T.A., and when he spat he didn't fool. This is not acceptable practice for a school administrator. So the Camel did not last long as superintendent of the Animal School, but the animals were not particularly surprised at that. It happens in many educational situations.

EDUCATIONAL TRENDS

THE convention speaker had just completed his brilliant summary of current educational trends, including public involvement, the necessity for citizens committees, togetherness and all-out participation. "If that young fellow is right," said the cynical old superintendent in the rear seat, "it is time I beat a psychopath to his door."

This page, as well as other content of *The Nation's Schools*, is copyrighted and may not be reproduced without permission.

New York court rules

Christmas Crèche May Be Placed on School Grounds

LEE O. GARBER

Director, Educational Service Bureau, University of Pennsylvania

THE extent of the authority of a school board to permit the use of school property for other than school purposes is often the question for litigation. Such was the case in New York state recently.*

In 1956, a committee known as the Crèche Committee was formed in the village of Ossining. Its membership consisted of Catholics, Protestants and Jews. Its purpose was to obtain funds to enable the placing of a nativity scene within the village during the Christmas season.

After studying possible locations for the placing of this scene, the committee decided to ask the board of education for permission to construct the crèche on the campus of the junior-senior high school. The board, by official resolution, granted this request, and the crèche was put up in December 1956, just a few days before school closed for Christmas vacation. It was taken down before school reconvened after vacation.

Crèche Put on School Grounds

No action was brought to restrain the board from putting up the crèche, and so in 1957 the board again permitted the Crèche Committee to place the nativity scene on school property. This time, however, it stipulated that the crèche was not to be set up until school had been dismissed for vacation and that it was to be dismantled before school took up after vacation.

As a result of this action on the part of the board, suit was brought by several plaintiffs (Baer and others) who were residents, taxpayers and/or parents. In general, the plaintiffs presented three bases for bringing the action. Some based their right to bring suit upon the fact that they were resi-

dents and taxpayers. Some based their right upon the fact that they had children in the elementary school, and at least two based their right upon the fact that they had children in the junior-senior high school.

The plaintiffs' contention was that the action of the school board was in violation of the First and Fourteenth Amendments to the Constitution of the United States, as well as Article I, Section 3 of the constitution of New York State. While the action was pending and before it was decided, the plaintiffs moved to have the board restrained and enjoined from permitting the placing of a crèche "on any property subject to its jurisdiction and to rescind any permission granted in that regard." The court denied the plaintiffs' application, on the ground that the question of constitutionality "under the particular facts and circumstances existing in the case at bar may only be determined after a full and plenary trial predicated upon a complaint containing sufficient allegations of damage" (170 N.Y.S. [2d] 43). This case then continued to trial.

The defendants, members of the board of education of the Ossining school district, challenged the right of the plaintiffs to bring this action on several grounds. With respect to those who were residents and taxpayers, the court noted that even if it were admitted that most, if not all of them, were taxpayers in the district, "that fact alone would not give them a sufficient interest to maintain the suit." Consequently, it held that the complaint must be dismissed with respect to those plaintiffs who allegedly had no interest in the case other than that they were residents and taxpayers.

It also held that the complaint should be dismissed with respect to those whose interest in the matter

sprang from the fact that they had children attending the grade schools within the district. In so doing, the court said: "Whether their children will ever attend the Ossining Junior-Senior High School is entirely speculative, and there is nothing in the record to indicate that the board of education has ever authorized or considered the placing of a crèche on other school property."

With respect to the two remaining plaintiffs, the court noted that, while they testified they were parents of children then in attendance in the junior-senior high school, one parent did not have a child in attendance at the time of the act complained of. Consequently, it held the action should be dismissed with respect to him.

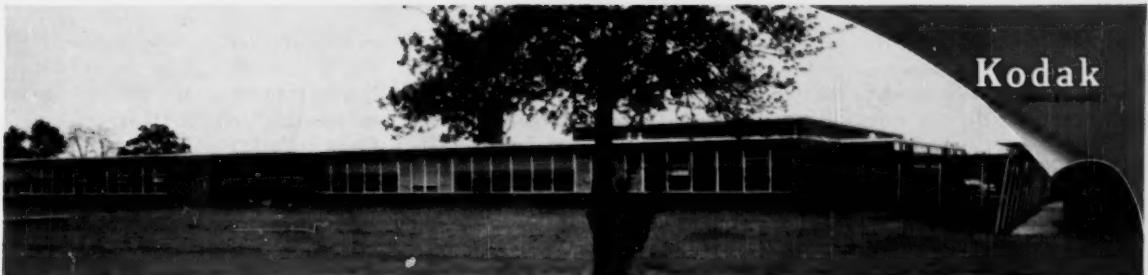
Recognizes Plaintiff's Action

This left but one plaintiff, whom the court recognized as having a right to bring action. With respect to him, it held he was not entitled under the law to a permanent injunction as requested because the "basic requirement for such a decree is the danger of irreparable injury."

Moreover, the court pointed out that the act which the plaintiff sought to enjoin was terminated when the crèche was removed from the school grounds early in January 1958, and that it did not appear that anyone had permission at the time the action was brought to place or maintain a crèche on school property, or that there was any "pending application for such permission."

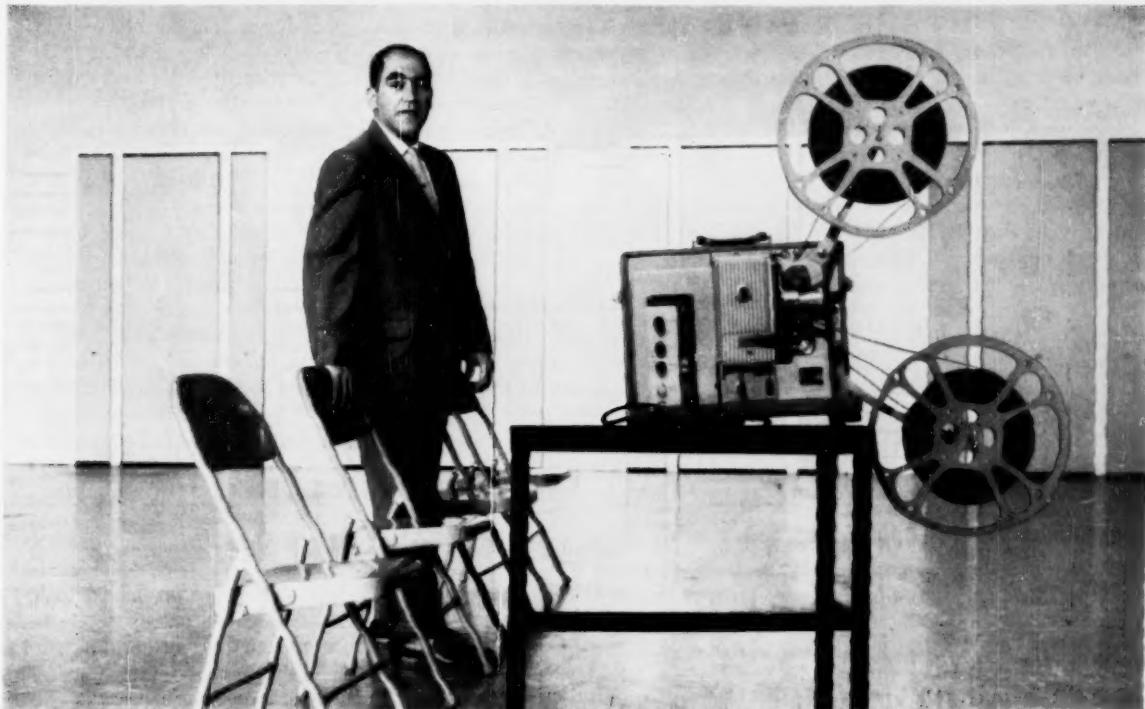
Nevertheless, in spite of the fact that "injunctive relief should not be granted against a fact accomplished," the court said: "However plaintiff will not be deprived of his day in court." It took this position on the ground that, while the action sought to be enjoined had terminated, the controversy in the

*Baer v. Kolmorgen et al., 181 N.Y.S. (2d) 230.



Kodak

At the new Orchard Hill Elementary School, Lectonia, Ohio, selected by A.A.S.A. for its exhibit of outstanding school designs, George Trombitas, Assistant Principal, says:



**"We're a country school with ambitious ideas involving A-V aids...
We can't tolerate A-V equipment that requires frequent servicing...
Our Kodak Pageant Projectors give us no trouble at all..."**

"You don't have to be a city school to exploit the advantages of audio-visual methods. In fact, we feel our expanding A-V program deserves some credit for our students taking two of the top 10 honor awards in the county—competing with city schools.

"But out here in the country we don't have the quick repair service for A-V equipment that city schools have. This means we use only equipment we feel will withstand student operation without interrupting breakdowns."

One reason Kodak Pageant 16mm Sound Projectors operate so dependably in city or country is that they are permanently lubricated at the factory. They never need oiling, eliminate problems of over-or-under oiling, eliminate oil record-keeping, too. And the Pageant Projector is easy to thread and operate . . . even for the inexperienced youngster.

Ask your Kodak A-V dealer for a complete Pageant demonstration. Or write for Bulletin V3-22, containing complete specifications. No obligation, of course.

Kodak Pageant Projector  **EASTMAN KODAK COMPANY, Dept. 8-V, Rochester 4, N. Y.**

community had not ended at that time. The creche had not been removed because of any change in board policy, but because of the very nature of the display itself. Because it would be extremely difficult for the plaintiff ever to obtain a judicial determination of a constitutional question if the creche were authorized year after year, unless the court viewed it as a continuing controversy, it decided to consider the case on its merits.

In so doing, the court made it clear that there was no evidence to the effect that any public school employe had been involved in the placing of the creche, and it also noted that no public school funds had been used, and that even the electricity used to provide the nightly illumination was paid for out of private contributions. It also pointed out that it has long been a tradition in Ossining for the board to receive and grant similar requests of various groups, such as the Heart Fund, the Cancer Fund, and the Red Cross, to place signs or symbols on the school lawn and that no similar privilege had been requested by any other religious body and, of course, no religious body had ever been denied this privilege by the school board.

First Amendment Is Applicable

In deciding this case on its merits, the court took cognizance of the fact that the U. S. Supreme Court had held that, by virtue of the Fourteenth Amendment to the Constitution, the prohibitions contained in the First Amendment are applicable to the actions of states and their subdivisions. It also noted that Article 1, Section 3 of the New York constitution reads in part as follows: "The free exercise and enjoyment of religious profession and worship, without discrimination or preference, shall forever be allowed in this state to all mankind"

The court then pointed out that there appeared to be two general bases for attacking the constitutionality of a resolution such as the one adopted by the board in this case. It said, *first*, where a person is required to submit to some religious rite or instruction or is deprived or threatened with deprivation of his freedom for resisting that unconstitutional requirement; *second*, where a person is deprived of property for unconstitutional purposes (such as a direct or indirect tax to support a religious establishment).

Because no question of the use of public funds or the time of school personnel was involved, the court reasoned that the second basis could not be seriously or successfully urged. The plaintiff contended that the creche was a sectarian religious symbol and that what it symbolized was inconsistent with his religion and that of his children. The court answered this by pointing out that the fallacy in his argument was obvious because the school was not in session when the creche was displayed in 1957. It also noted that the influence, if any, of religious symbolism could not be escaped during the Christmas season, and that it would be difficult to state as a practical matter that the fact the symbol appeared on school property gave it any greater influence than if the symbol had appeared on private property.

Court Cites McCollum Case

While the plaintiff attempted to bring his case within the ruling of the U. S. Supreme Court in the famous McCollum (released time) case, the court noted that the Illinois case involved the actual teaching of religion in public schools, during the time set aside for schools, by instructors approved by sectarian groups. Consequently, the facts in that case were in no way comparable to those in the case before it. The court also took the point of view that the presence of the creche on school property was not "teaching" within the meaning of the McCollum decision, because "teaching" presupposes the presence of students and "we must again repeat that school was not in session while the creche was displayed in 1957."

Finally the court said, "The creche is undoubtedly a religious symbol," but it appeared to reason that this was without effect here because all are free to interpret its meaning according to their own religious faith. If, however, the school were to limit that freedom or if it were to give instruction as to its meaning, then a different situation would exist. Here, the board merely accommodated a religious nondenominational group.

In commenting on this, the court said: "If such accommodation violates the doctrines of absolute separation between Church and State, then it is time that that doctrine be discarded once and for all. Absolute separation

is not and never has been required by the Constitution." The court then quoted from Mr. Justice Douglas who, in speaking for the U. S. Supreme Court in the famous *Zorach v. Clauson* case (released time) 343 U. S. 312, said:

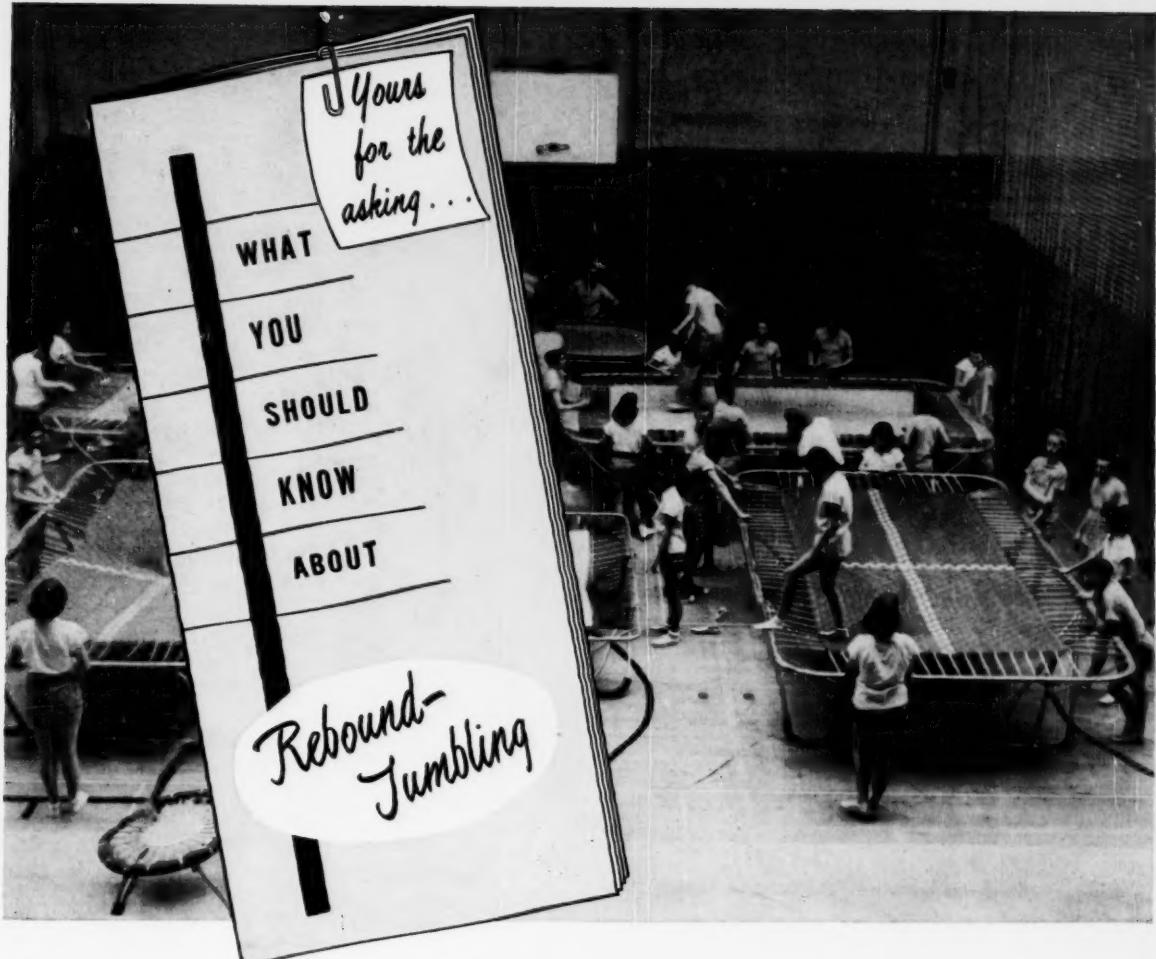
"The First Amendment, however, does not say that in every and all respects there shall be a separation of Church and State. Rather, it studiously defines the manner, its specific ways, in which there shall be no concert or union or dependency one on the other. That is the common sense of the matter. Otherwise the state and religion would be aliens to each other — hostile, suspicious and even unfriendly."

As a result of its thinking, the court concluded that by no process of legal reasoning could the board's action in granting permission to the Creche Committee to place the nativity scene on the school grounds be considered as an establishment of religion. Neither could it be considered as a denial of the right to worship. The site was chosen not because it was school property but because of its location and because of the amount of space available. The board simply cooperated with the committee. Its action was a mere accommodation.

Finally, the court summarized its thinking by saying: "Privileges and benefits should not be denied to individuals or organizations merely because of their religious affiliations or because they may be engaged in some activity of a religious nature The test is the First Amendment. It has not been violated here."

Refers to Thomas Jefferson

In this case the court provided further explanation of Thomas Jefferson's comment, in 1802, to the effect that "a wall of separation [exists] between Church and State" — one which courts, on many occasions, have found it necessary to expound. This case adds a bit more to the sum total of such explanations. Needless to say, as far as New York is concerned, it seems to give the school board authority to permit the use of its property by religious groups, if it sees fit, provided it makes no contribution to the cause of the group through the donation of funds or time of its employes. It should be noted, however, that the board must not act arbitrarily and that it must treat all groups alike. ■



write for your free copy today

USEFUL...

CONCISE...

NON-TECHNICAL...

Just out—Nissen Trampoline's* helpful new booklet, "What You Should Know About Rebound-Tumbling," gives some fundamental facts about the activity that you'll want to know whether you are a teacher, administrator or parent. Safety, proper instruction, effective use of space, cost, and suggestions on program planning are all covered in this new booklet. If you teach physical education or have any responsibility for the physical education program at your school, you'll want a copy. There is no charge—send for yours today.

*Reg. U.S. Pat. Off. for Nissen Rebound-Tumbling Equipment

NISSEN

NISSEN TRAMPOLINE CO.

Mfgs. of Rebound-Tumbling Equipment

215 A AVE. N.W. • CEDAR RAPIDS, IOWA

Phone EMpire 4-2417

NISSEN TRAMPOLINE COMPANY
215 A AVE. N.W., CEDAR RAPIDS, IOWA

Please send, without obligation, a copy of your new booklet, "What You Should Know About Rebound-Tumbling."

NAME POSITION

SCHOOL

ADDRESS

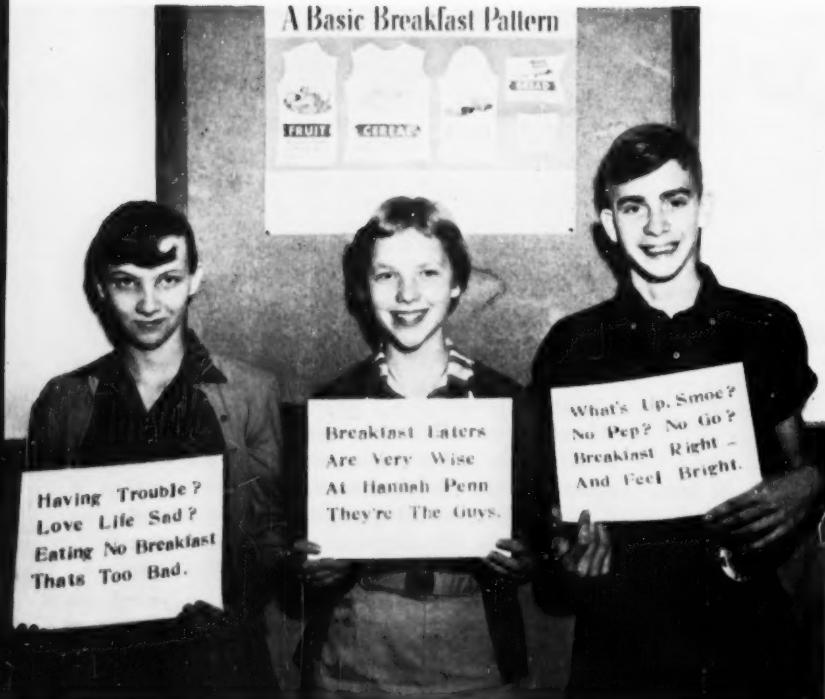
CITY STATE

SCHOOLS CAN TEACH TEENS TO EAT RIGHT. HERE'S HOW

ANNA DE PLANTER BOWES

Director, Division of Nutrition
Pennsylvania Department of Health

A Basic Breakfast Pattern



STUDENT COUNCIL members put on a breakfast eating program each morning for a week to improve the food habits of teen-agers.

SCHOOL health examinations and research studies in many parts of this country indicate that teen-agers are often the most poorly nourished group in the population. While figures vary from state to state, from urban to rural communities, and for various socioeconomic groups, the over-all consensus is that too many teen-agers have poor nutrition. This has been found to be especially true in Pennsylvania.

Current summaries of food intake, food habit surveys, and medical examinations from many of the state's counties reveal the following:

1. Teen-age girls have poorer food habits and poorer nutritional status than boys.
2. Anemia is more prevalent among girls than boys. The girls, too, have "tired blood."
3. Underweight and overweight are more frequent among girls than boys.
4. Skipping breakfast was mentioned most frequently as a poor food habit by both boys and girls.

Awareness by school personnel that these situations exist often results in efforts to encourage teen-agers to improve their food habits. It is most desirable to have the students themselves develop the plan. If that is not feasible, the students should be represented in the development of the plan through the student council or by other method.

Simple surveys that can be conducted easily and quickly are desirable. An example of this type was recently conducted by the teachers of physical and distributive education at John Harris High School in Harrisburg, Pa. Students, 14 and 15 years of age, were asked to score themselves during a class period on two questions, with suggested points to check their practices.

Some of the pupil comments following this survey were:

"Holy cow! Now I can see why I'm tired all the time!"

"Could these habits be the cause of all my skin trouble?"

(Continued on Page 88)

GO ELECTRIC for Greater Versatility TOASTMASTER "SQUARE-YARD" RANGES



MODEL HR36D (center) "All-Purpose" Range—three independent 250° F.—850° F. top sections, almost 6 sq. ft. of versatile surface, for all range top cooking; 1-pan bake & roast oven.

MODEL HR36G (right) "Multi-Purpose" Range—2 "All-Purpose" top sections—each with thermostatic control from 250° F. to 850° F.; two 3-heat hot plates; 1-pan bake & roast oven.

MEET EVERY HEAVY-DUTY COOKING NEED

Whether your cooking operations are specialized or varied, there's a Toastmaster "Square-Yard" Range to meet your requirements and provide the cool, clean, efficient and economical service of *modern electric cooking!*

A complete selection of range top and base combinations allows you to choose the cooking features you want to handle all your heavy-duty cooking. And Toastmaster "Square-Yard" Ranges assure you of a better finished product, whatever your demands; stock bulk cooking, pan frying, griddling on top . . . or baking and roasting in the convenient "All-Purpose" oven base.

Matching Toastmaster "Square-Yard" Ranges can be banked to provide unlimited cooking area and customized kitchen appearance. All models are equipped with 6" tubular legs *at no extra cost*—to meet critical National Sanitation Foundation standards. Optional backshelf and back-shelf broiler units increase their versatility.

Discuss your food preparation requirements with your Toastmaster distributor—and learn how Toastmaster heavy-duty electric equipment can boost your kitchen efficiency, save time, cut costs.

ALL-NEW TOASTMASTER GRIDDLE TOP RANGE 20G1-R



The most powerful griddle top ranges in the industry! Really four griddles in one, as each 9 in. of surface cooking area can be independently "Pin-Point" controlled from 100° F. to 450° F. for perfect hamburgers, bacon, pancakes—even fried eggs—all at once! In addition,

these "Square-Yard" masterpieces include either a full one-pan size Directional Heat "All-Purpose" oven, convenient and versatile cabinet base, or sanitary and economical table top base! The new Toastmaster Griddle Top range has been designed to meet *present and future demands!*

The Complete Line of Electric Cooking Equipment



TOASTMASTER®

"TOASTMASTER" is a registered trademark of McGraw-Edison Company, Elgin, Ill.

TOASTERS • BUN TOASTERS • SANDWICH GRILLS • BROILERS • FRY KETTLES • GRIDDLES • GRILLS • HOT-FOOD SERVERS • HOT PLATES • OVENS
PIZZA OVENS • BUILT-IN COUNTER EQUIPMENT • RANGES • WAFFLE BAKERS • FOOD WARMERS • SINK SANITIZERS • BLENDERS





8¢ PROFIT from a 10¢ SALE!

Game crowds will produce the profits that can be used by any school in a hundred ways. Just serve 'em popcorn, popped in a CRETORS POPCORN MACHINE. No other food is as popular. No other money-making enterprise gives your school such a high return for such a small investment. Write for "The Popcorn Profit Story" and illustrated literature. Delayed payment plans available. Complete line of floor and counter model popcorn machines for any school. Earning capacities from \$12 to \$75 per hour.

Cretors —
SINCE 1885
POPCORN BLDG. NASHVILLE, TENN.
Manufacturers of the OFFICIAL WEIGHT VOLUME
TESTER for the POPCORN INDUSTRY

How Students Ranked on Proper Eating Habits

Questions	Answers
Do you include each of the basic seven foods?	Judged best
Do you eat the proper amount of food?	Second best
Do you eat a variety of foods?	Second poorest best
Do you eat three meals a day?	Poorest
Do you chew foods well?	Third poorest
Do you try to eat in a pleasant environment?	"Sometimes"

How Students Ranked on Poor Eating Habits

Questions	Answers
Do you skip breakfast?	Judged poorest
Do you skip lunch?	"Not often"
Do you skip dinner?	"Seldom"
Do you skip three meals?	"Rarely"
Do you chew poorly?	"Too often"
Do you eat too many sweets between meals?	Judged second poorest
Do you drink too many soft drinks?	Judged third poorest
Do you hurry and make interruptions at meals?	Almost universal

Improvement in practices are noted among many pupils following such surveys. Self-evaluation is an effective tool in motivation.

Other Aids

At summer workshops and at institutes, teachers and nurses are encouraged to work out plans for back-home projects. With assistance from the state nutritionist, this preplanning results in many effective nutrition projects involving school personnel, pupils, parents and the community. Some techniques for achieving success are:

Obtain the cooperation of the school authorities.

Enlist support from strategic personnel, such as the teachers of home economics, art and English and from the cafeteria manager.

Include student participation in original plans and for the duration of the projects.

Inform the local press, television and radio stations for publicity and recognition of efforts.

Evaluate results at a stated interval of time.

Some activities that have proved most helpful in improved health habits or appreciation of the role of food for health are:

Better breakfast campaigns. As stated earlier, poor breakfast habits rank high among teen-agers. School physicians and nurses report that mid-morning fainting and headaches are commonest among students who skip breakfast or have an exceptionally poor or inadequate one.

Animal feeding experiments in classrooms. These are excellent to demon-

strate the effects on appearance and vitality.

Experimentation in home economics classes in cooking unpopular foods for best taste appeal, such as liver, green vegetables, and salads.

Participation in planning family meals.

Active cooperation in family marketing, cooking and serving of meals.

Opportunity to join a weight reduction club for pupils who are much overweight.

A recent Purdue University study shows that 52 per cent of teen-agers worry about weight. Another survey of 604 teen-agers reveals that 58 per cent have dieted.

Summary

The best motivation for inducing teen-agers to eat properly is derived from activities in which they themselves make some decisions, such as:

Letting them decide what they eat for breakfast, even if the choice is bizarre. A breakfast eaten with pleasure is better than none.

Allowing teen-agers some choices at school lunch rather than adhering to only one regular Type A lunch.

Letting them help plan lunches at school and meals at home. Responsibility for this for even a week makes them aware of the many facets of meal planning and the cost of food!

Giving them latitude in planning their snacks and food for their parties. Parents can help by making desirable foods both available and attractive.

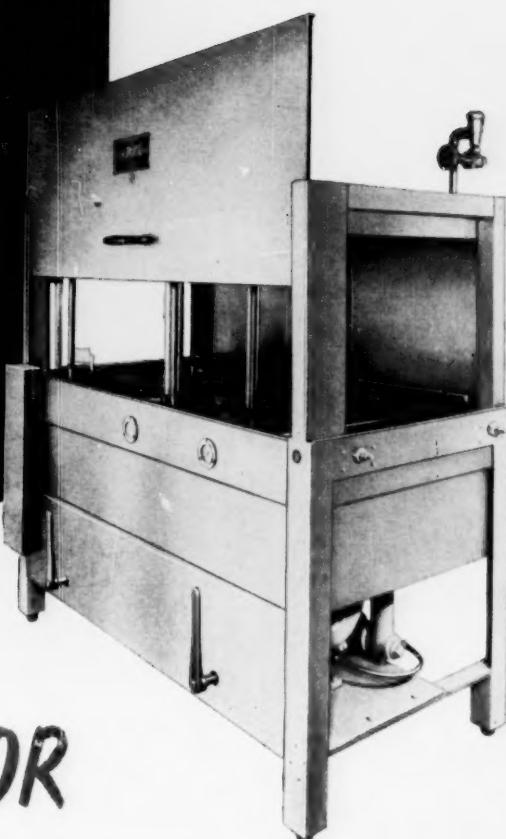
Responsibility for making some of these choices eases many tensions both at home and at school.

Model 2T-P-60 with...
Fresh Water Prewash
 Model 2T-P-60R with...
Recirculating Prewash

Length Only 60"

- ✓ PREWASH
- ✓ WASH
- ✓ RINSE

**And a Capacity of 4805
Dishes Per Hour!**



NEW TOLEDO
 conveyor dishwashing machine
 with exclusive...

PANORAMIC DOOR

It's another great Toledo "first" . . . to bring you speedier, more efficient dishwashing with big savings in space. Look it over—every compact 60" of it! Check the exclusive features to streamline kitchen service and cut costs. There's Panoramic Door to boost operator efficiency, make inspection and cleaning fast and easy. There's prewash, wash and rinse with a generous 4805 dishes per hour capacity . . . also Hi-speed pumps with Integral Motors, Zip-Loks on wash tubes, One Level Tanks, Dial-type Thermometers, Vacuum Breakers, Stainless Steel and corrosion-resistant construction! All yours *now* in a dishwasher built to those *highest standards* of quality that assure thoroughly reliable operation. Don't wait—SEND TODAY for complete information on this great new Toledo dishwasher that belongs in *your* kitchen!



TOLEDO® *Kitchen Machines*
 Division of Toledo Scale Corporation • 245 Hollenbeck St., Rochester, N. Y.



Toledo "10" Slicer
 Combines handsome . . .
 design with fast, easy
 operation. Easy to
 clean—parts tilt away
 or are quickly removable.
 Efficient sharpening.
 Positive gauge
 plate control.



Disposers . . . Heavy-duty for fast, trouble-free operation. Full choice of sizes from $\frac{1}{2}$ HP up to 3 HP available in a wide selection of cone sizes.



Peelers . . . Offer fast, double-action peeling with abrasive on both disc and cylinder. Low waste. Portable and cabinet type.



Door-Type Dishwashers . . . Fast, thorough, dependable. Efficient three-way door. Choice of timed automatic or pushbutton controls.



Hi-Speed Mixers . . . Available in 20 qt., 30 qt., and 60 qt. sizes. Modern clean-line design. Wide choice of attachments.

TODAY, MORE THAN EVER, IT PAYS TO GO **TOLEDO** ALL THE WAY!



The NATION'S SCHOOLS



The Lennox Living Laboratory: This \$50,000 school has been built by Lennox Industries, Inc. in Des Moines, Iowa to carry on research in the field of school classroom heating, ventilating and air conditioning. Extensive research and testing is carried on continuously, both with and without students present in the classrooms.

**GAS and
LENNOX can
provide your schools with the
finest in fresh air heating and
ventilating...**

at lower operating and building costs

This new Gas system automatically draws in fresh air from outside . . . warms, cleans, and circulates air quietly and evenly throughout the school.

It's hard to believe, yet 65¢ per square foot was the complete cost of installing a Gas-fired Lennox Comfort Curtain System in the Potosi, Missouri, High School — including automatic controls, ductwork, labor — everything.

This is unusually low, even for the Comfort Curtain, but costs of \$1.03 in Indiana; \$1.15 in Montana; and \$1.12 in South Dakota were *usual and typical* of the amazing savings offered by a Lennox Comfort Curtain System using Gas.

Money saving, safe Gas units are being installed in thousands of schools across the country. If you have specific questions, your local Gas company or a Lennox specialist—or both—will be available to assist the architects and engineers to illustrate how this equipment can best be applied to any specific school plan. Check the facts about Gas and you'll see — modern Gas heating out-performs all other fuels.

Call your local Gas company or write to Lennox Industries Inc., 1701 East Euclid Ave., Des Moines 5, Iowa. American Gas Association.

A.S.B.O.

(Continued From Page 75)

"This has been a very successful convention in two respects," Percy M. Muir, A.S.B.O.'s 1959 president, told *The Nation's Schools* in an exclusive interview. "First, it has succeeded in providing an element of inspiration for the men and women responsible for running the business affairs of our schools. I feel certain that the program has renewed the delegates' enthusiasm for their all-important task." But the most important accomplishment of the 1959 convention was a "practical nature," he said.

"The section meetings that dealt with

the various aspects of school business affairs were well attended and really got down to cases. Practical details were offered and members not only were able to compare notes with their fellows from all over the United States and Canada, but they were given the opportunity, and took it, to work out many practical solutions to their problems, based on the experiences of others near and far. This, I think, is the real success," said Mr. Muir.

Changes Are Effected

Stating that every year cannot be a year of great change, Mr. Muir said the past year has been one of "consolidation."

"During the past year we have watched the important changes A.S.B.O. initiated in recent years being put into effect. We have spent the year making these changes work," he said. "This year also has seen A.S.B.O. lay the groundwork for establishing firmer relationships with state and regional professional organizations.

"The entire area of school business management is coming into its own in importance. A great upsurge lies just ahead when many more business officials will be introduced in districts. The gradual decline in the total number of school districts will mean fewer but larger units in which the need of school business managers will be even greater than it is today."

Earlier, Mr. Muir had told the convention of his personal pride in being the third Canadian in A.S.B.O. history to hold the office of president. He said the partnership of the United States and Canada is "an outstanding demonstration of international cooperation," and he thanked the "hundreds of sincere and dedicated members who have given their time and energy to support the work of the association."

He stressed the need for more research at the local level. "Each of us in the local sphere should choose an area of interest and do some research. We ought to then call it to the attention of the various research committees."

Despite the recent increase in A.S.B.O. membership fees, President Muir predicted a new high in membership by the end of this year. He told the school people they must perform their business tasks in such a way "that those who come after us will rise up and call us blessed."

At the opening service on Sunday evening, the Rev. Wyatt Kimberley observed that in this space age we are apt to consider ourselves superior to others and superior to our God. But, said the pastor of Our Saviour Lutheran Church of Lake Worth, Fla., no matter how high man reaches into the heavens, he still remains the creature, not the creator.

Epigram for Conventioneers

Jeff H. Williams succeeded admirably in "laughing the A.S.B.O. conventioneers through the past and preparing them today for tomorrow." The bard from the Sooner state showered business officials with new and slightly worn epigrams such as: "If we look long enough and closely enough we'll discover truths that have existed since the world began. . . . Too many timid people are not able, and too many able people are not good. . . . The trouble with the world is in the minds of men. . . . We need more harness for too much horsepower. . . . We spend too much time mountain climbing over molehills. . . . Our country must keep itself strong enough to be feared, good enough to be respected. . . . The future is heading

now... you can have a planned "Business Training" Laboratory with Cramer

Profession-L

MODULAR DESK UNITS and
FAMOUS CRAMER POSTURE CHAIRS



Teach office procedure . . . offer senior secretarial training . . . in an authentic office atmosphere! Here is the first laboratory-designed modular furniture for business training. All types of office work can be taught in the same classroom.

Typewriter desks and posture chairs feature fingertip adjustments. Maintenance free modern design. Plastic tops. Units will not "walk" from vibration.

7 basic free-standing units, plus 3 auxiliary units and optional bookshelves, combine to make hundreds of practical units.

WRITE FOR
COMPLETE
DETAILS

Cramer POSTURE CHAIR COMPANY, INC.
625 ADAMS / DEPT. NS-12 / KANSAS CITY 5, KANSAS

TYPING
SHORTHAND
BOOKKEEPING
MACHINE PRACTICE
GENERAL BUSINESS

The Man with the Lily Plan has the right answers to your lunchroom problems!



Lily Food Service Saves You Time...Money...6 Ways!

Individually, or in complete place settings, Lily® food service makes your lunchroom program easier . . . more efficient . . . more economical! Here's why:

- **Sanitary** — No chance of sanitation slip-ups here!
- **Controls Portions and Food Costs** — Lily offers the right size cup, container, dish or plate for every need.
- **Eliminates Washing and Bussing** — After use, they're thrown away. No more expensive machinery and labor needed to wash or bus. Speeds cleanup time, too!
- **No More Breakage—Accidents** — Lily paper service is safer for children . . . economical for you!
- **Saves Storage Space and Handling** — Stack easier, more compactly than traditional chinaware. Are about 30 times lighter for easier handling!
- **Quiet** — No rattle or clatter of other types of service. Makes eating more pleasant for students and staff alike!

And if you are transporting and serving from a central kitchen, paper service can be kept in inventory "on location"—

save handling, washing, storage. Shown above (left to right) are just a few of Lily's Food Service products that are being used in more and more school lunchrooms across the country.

- #1. 4-oz. Pleated Dish for salads and desserts.
- #2. 5-oz. Cold Cup for juices.
- #3. 8-oz. Hot Food container for soups, stews, casseroles. (You can bake and serve right in these Lily unwaxed Nestrites.®)
- #4. 6-in. Molded Plate for breads, pies, cakes.
- #5. 10-oz. Milk Design Cup (to be used with cup holder). Ideal for serving milk from refrigerated bulk dispensers.
- #6. 10½-in. Molded Plate for all entrees.

Think it over. Doesn't it make sense to serve the Lily way, and eliminate practically every serving problem you have? For further information on Lily Food Service . . . without cost or obligation . . . just write to: Lily-Tulip Cup Corp., Dept. NS129, 122 E. 42nd St., New York 17, New York. *T.M. Reg. U.S. Pat. Off.



These AmBridge Modular Schools were started this spring ... completed this fall!

Good-looking, economical steel schools
go up fast... are strong and safe!

Building a new school needn't be a long, drawn-out project. An increasing number of school boards are getting new schools quickly by turning to USS AmBridge Modular Schools.

The two buildings shown here were begun just this spring—and completed for the fall term. Nobody was trying to set a speed record—AmBridge Modular Schools just lend themselves to simple, fast construction. These schools feature good, sound construction, lasting good looks and practical, flexible interior arrangement. Maintenance will never be a major problem either! And, of course, there's safety—both in the layout and the fire-resistant steel construction. USS AmBridge Modular Schools give you all of these advantages, *plus* economy.

USS AmBridge Modular Schools are built of standard steel components. They arrive at your site already assembled, ready for rapid construction in any season, cutting construction time and field work to a minimum.

AmBridge Modular Schools are as beautiful as they are sturdy. Exterior and interior panels are available in a wide choice of attractive colors. Porcelain and baked enamel finishes are available—or stainless steel if you prefer.

If you're faced with a classroom shortage, suggest that your architect contact us. You'll like the economy and lasting good looks of USS AmBridge Modular Schools... and the early occupancy date.

USS is a registered trademark

American Bridge
Division of
United States Steel 

Send for FREE copy of illustrated booklet

AmBridge Modular Schools, Room 1831, American Bridge Division
United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pa.

Please send me a free copy of your 24-page booklet on USS AmBridge Modular Schools.

Name _____ Title _____

Address _____

If you are an architect, name of firm _____

City _____ Zone _____ State _____

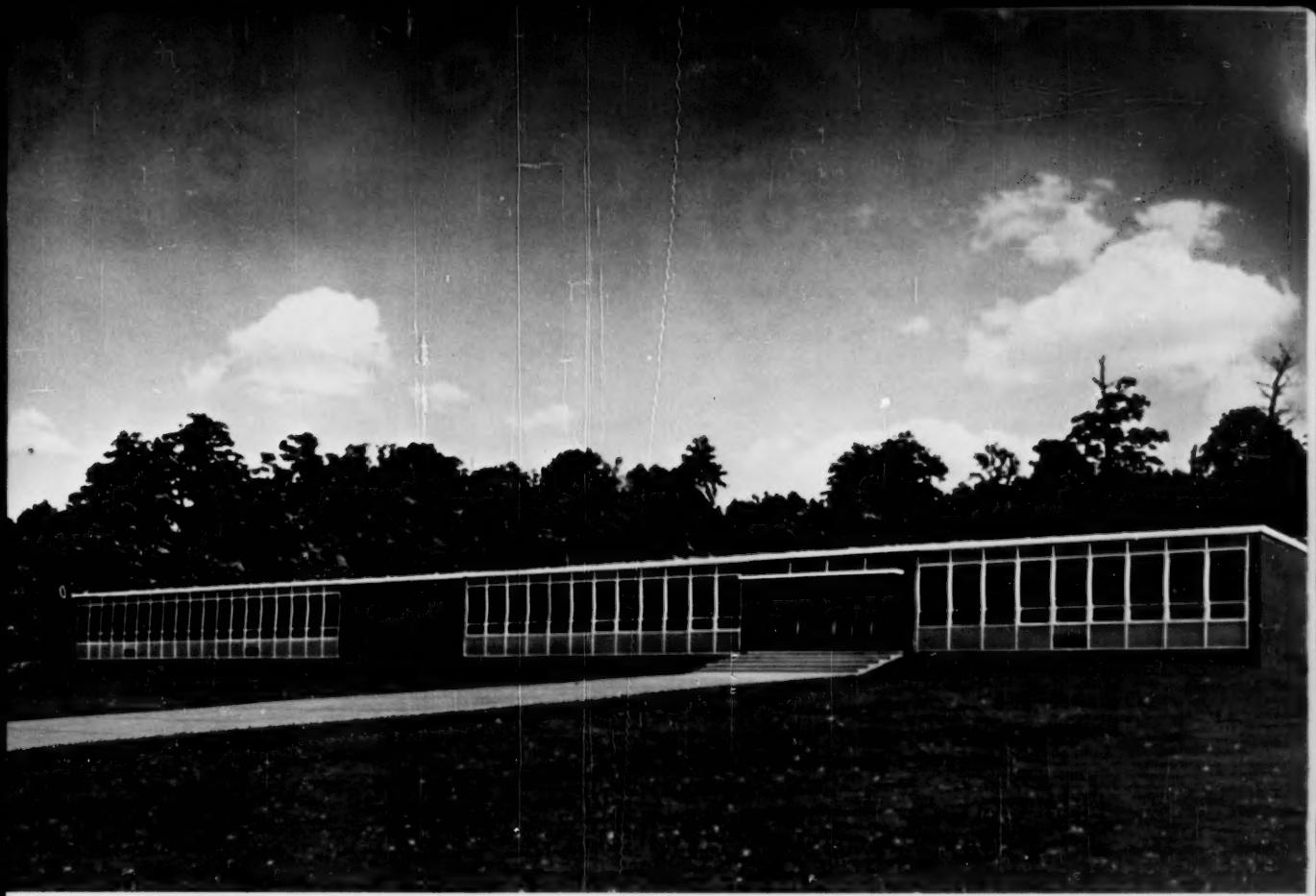


Saint Catherine's Roman Catholic School
Wildwood, Pennsylvania
11,453 sq. ft. floor area
Eight 24' x 36' classrooms
Architect: Joseph F. Bontempo & Associates
Engineers: Michael Baker, Jr., Inc.
General Contractor: American Bridge Division, U. S. Steel



Elementary School
Evans City, Pennsylvania
25,084 square feet floor area
Twelve classrooms
Architect: B. J. McCandless
General Contractor: Carcasse Construction Co.
New Brighton, Pa.





this way. . . . There is not another group of people to whom our citizens have better reason to bow down than to the people in our schools."

The Simpler the Better

In a keynote address before the second general session and later at a section meeting on office management, Allan H. Mogensen, director of the Work Simplification Conference, Lake Placid, N.Y., laid down rules for handling people and simplifying work in school business.

"The current attitude, in all phases of business," he asserted, "can be summed up as one of A.T.H.W.I. — Aw, to hell with it!" He said the first thing the busi-

ness manager must do is to reconcile himself to the fact that rightly or wrongly the people on his staff are the people with whom he must work. "We must start from where we are, not from where we'd like to be," he stated. "True, a manager's job is to plan, organize, coordinate, direct, control and motivate. But his greatest job is to improve. And to improve, you can't start on assumptions. You need facts. You must start by improving what you have to be improved.

"We used to use fear, force and authority to get people to do the things we wanted. Now we have switched to persuasion, rewards and satisfaction. They are superior to old methods, but are not

complete answers," said Mr. Mogensen. The real solution, he suggested, will come only through an "organized application of common sense."

John Fisher called attention to "the greatest story in the world today": the daily demonstration of how a great power and a small nation, the United States and Canada, can face each other across an international border as "great neighbors." Referring to the standing ovation given by A.S.B.O. members to their president, Percy M. Muir, and his wife Muriel, both citizens of Canada, the executive director of the Canadian Tourist Association declared: "You have stood for a man of another country without thinking of him as a man from another country. Wouldn't it be wonderful if the peoples of the whole world would associate on a Percy and Muriel basis?"

Honors Bestowed

Recognition for services to the association came in various forms to the following persons:

1. Honorary life memberships to three past presidents of the association: Hubert L. Mills (1928), Thomas W. Clift (1951), and Ed. P. Williams (1952), the first two in absentia.

2. Life memberships to Elliott C. "Jack" Spratt, chairman of the A.S.B.O. exhibitors committee for many conventions, but absent because of illness this year; and to William M. Millican Jr., this year's exhibitors chairman.

3. Immediate past president's plaque to J. Harold Husband.

4. Inscribed watches to President Muir and Mrs. Muir.

5. A formal resolution of appreciation to Executive Secretary Charles W. Foster for his efficient administration of the organization's affairs and the Evanston office.

Research, Publishing

Announcements were made regarding the following publication projects of A.S.B.O.:

1. Just released: A.S.B.O. Research Bulletin No. 19 (1959), titled "Fringe Benefits for Classified Employees in Cities of 100,000 Population or Greater."

2. Ready for distribution: "Checklist for Economies in Pupil Transportation," an 11 page study.

3. Scheduled for next year: "Techniques and Methods of Conducting a Wage and Salary Survey," a 20 page brochure; the updated history of the association, in the making for three years; the report of the special committee on "responsibilities and qualifications of the business manager."

4. Future: Subcommittees to begin the work of compiling an international purchasing guide and to report at next year's convention; the insurance management committee to "follow through" on re-

Palmer Methods

DIAMOND 75 ANNIVERSARY
75 years
of acceptance by the
schools of America

**This, our 75th year, we have available the newest
editions in both cursive and manuscript writing.**

Please contact us
if your pupils
are having any
handwriting
difficulties. We
work with one
subject only —
handwriting.

**Write for information and
free catalog.**

**PLAN TO VISIT
THE "PALMER" BOOTH—
NO. G-12 — AT THE
1960 A.A.S.A. CONVENTION**

PALMER METHOD

**A. N. PALMER CO.
902 S. Wabash Ave., Chicago, Ill.
55 Fifth Ave., New York 3, N. Y.**

FROM THE NATION'S LARGEST MANUFACTURER OF COMMERCIAL AND INDUSTRIAL LIGHTING EQUIPMENT...

NEWS about lighting's most versatile design elements

UNI-FRAME

recessed incandescent lens box line
by



A-636

New smaller size for 100-150
watt lamps at lower price!

New diffusing glass bowl!
New matching splay trims!

New application ideas!

You'll find full details in this
attractive UNI-FRAME booklet.

Available from your Day-Brite
representative listed in
the Yellow Pages. Or
write Day-Brite in St. Louis
for Catalog OD-1036.

...and IDEAS on "how to" use them

Day-Brite Lighting, Inc. St. Louis, Missouri Santa Clara, California



13'10" TABLES and BENCHES QUICK USE-FAST CLEARANCE



STORED IN A STEEL
WALL CABINET
• • •
EASY TO ROLL OUT
OR LOCK BACK IN
• • •
SIMPLE OPERATION

Mitchell
TABLES and
BENCHES
FOLD-O-LEG
Doubler



Overall cabinet size 7'2" high, 5'4" wide, 6 1/2" deep. Cabinet can be recessed in-the-wall or fastened against-the-wall.

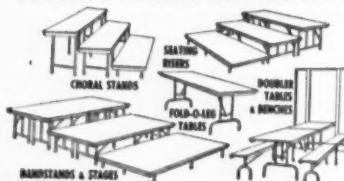
**VERSATILE, SAFE UNITS THAT CAN
BE USED ATTACHED OR DETACHED
FROM THE CABINET**



The modern way to in-crease the use of gymnasiums, halls or class-rooms.

Tables and benches are separate units that can be kept attached to cabinet for quick lunches, arts and crafts, etc., or rolled free for banquets, games and other activities where tables are needed. Choice of top materials in many patterns and colors.

**A COMPLETE LINE OF SPACE-SAVING,
PORTABLE, MULTIPLE-USE EQUIPMENT**



Write for Descriptive Folders

MITCHELL MFG. CO.
2734 S. 34th St. • Milwaukee 46, Wis.

search previously conducted in this field. The Three E's probably will supersede the Four B's at the 1960 golden anniversary convention, President-Elect G. Alvin Wilson told The Nation's Schools following this year's meetings. Mr. Wilson said that for the St. Louis conclave he has suggested the theme: Education, Economics, and Ethics in School Business Administration.

Next year's meetings, Mr. Wilson anticipates, will have less of the glamorous overtones of the Miami Beach setting. More of the program possibly will be developed around self-education. Talks in a greater degree are expected to be made by the association's own members "who after all are likely to know more about the field of school business management than most outside speakers, interesting as the latter usually are." There will, however, be a "big name" keynoter, preferably from the convention city area, possibly Harry S. Truman.

The 1960 president counsels business officials against becoming lost in details. Some school offices, he fears, have gone "paper work crazy." Filing, especially, should be simplified, a good guide being: When something goes into the file, something else should come out.

Need Competent School Officials

Mr. Wilson foresees that with the growing mass of business problems, accented by continuing school consolidations, there will be a need for more competent school business officials. Superintendents in larger numbers will "cease to knock themselves out by attempting to shoulder all the added duties themselves."

Mr. Wilson has no doubt that with the steady gain in the number of persons entering the school business administration field A.S.B.O. will continue to experience a steady growth in membership. He "certainly hopes" that with the increase in numbers there will be a concomitant increase in the quality of membership, but does not think that to achieve competence a separate degree in business administration is always necessary. At any rate, the new association proxy does not believe that his organization will set up academic membership qualifications comparable to those laid down by the American Association of School Administrators.

As to the format of the training program desirable for the future school business manager, the 1960 chief executive stresses the need to develop a broad background in the problems of school administration, with special emphasis on the tools of business. Courses in accounting, school law, building, planning and statistics will prove particularly valuable he maintains.

In addition to electing G. Alvin Wilson president, the convention approved the slate of other officers and directors pre-

sented by Andrew C. Hutson Jr., chairman of the nominating committee and 1957 president of A.S.B.O. The new line-up, effective January 1, is as follows:

President-elect, Herschel S. Brannen, Houston, former vice president; vice president, Joseph P. McElligott, San Francisco, former director; new director, Herman C. Bleckschmidt, St. Louis, and reelected director, Frederick W. Hill, Minneapolis. President Muir will serve as executive committeeman.

Continuing on the board are: Everett Zabriskie, Nutley, N.J., and Gray N. Taylor, Syracuse, N.Y. Charles W. Foster continues as treasurer, executive secretary, and editor.

Providing Leadership

After confessing his belief that, underneath it all, it is really the gabfest and the literature handed out that make conventions profitable, E. B. Sessions of the college of education, Ohio State University in Columbus, told the section meeting on maintenance and operations that an attitude of wanting to be helped must be instilled in the individual school employee. "This is difficult to do because in many cases the noncertified employee is rather a self-centered individual. He's been on his job a long time and has the answers."

In listing do's and don'ts, he said that school districts (not the employees) should pay for any inservice training program; class periods should be short and snappy. ("These people are not accustomed to sitting in a classroom.") Specific subjects should be discussed with emphasis on practice, not theory. "A feeling of equality must always prevail," he said. "Nothing is more disturbing to a non-certified school employee than being talked down to."

Reganam Ssenisub

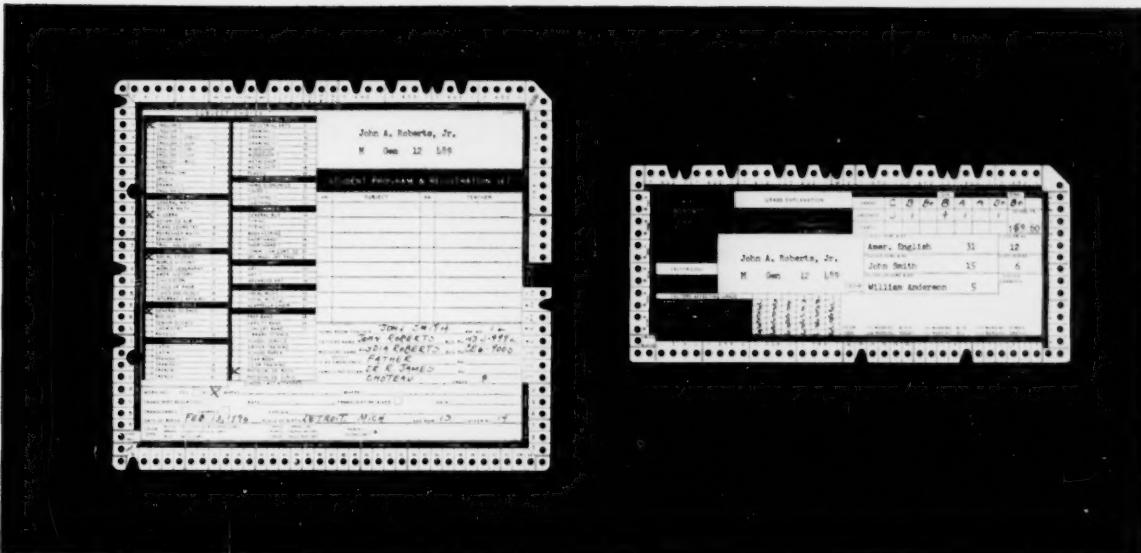
Selecting a business manager is like buying equipment, said Robert Fisher, personnel director for the Personnel Commission of Los Angeles city schools. Don't buy equipment that becomes obsolete before the final payment is made; don't be too impressed with low initial cost; write your specifications so that they are clear, closed to undesirable material, but never restricted to only one product unless nothing else is available. These were Mr. Fisher's words of guidance in not only buying equipment but in selecting a "Reganam Ssenisub" (business manager spelled backwards), which he termed an "enormous investment."

"Give careful consideration to the duties involved; consider the organizational structure of your district. Then draw up your specifications accordingly. The business manager you engage must fit your organization," he stated.

Both Mr. Fisher and Herschel S. Brannen, who chaired the section meeting on the selection of business personnel at

Low-cost Keysort punched card system provides individual class scheduling—many other benefits to secondary schools

Keysort Student Program and Registration Set



Keysort Subject Report Card

A highly effective technique for optimal development of the individual student by homogeneous ability grouping—subject by subject—is now available to every secondary school. And the same simple, inexpensive system provides pinpoint attendance control and meaningful, objective grade reports—all with a drastic saving of teaching and administrative time.

Conflict-free, fine scheduling of the type that optimizes programming, through the best possible blend of teaching abilities, available facilities and similar student ability groupings, is being accomplished in hours instead of weeks.

Clerical work, normally performed by teachers, is greatly reduced with the Keysort system. Grade reporting, for example, is simplified to the point where instructors can handle it during off-periods. Objectivity in grading is assured, since instructors do not see the marks other instructors are giving. And, since these reports are Keysort cards, they have the built-in ability to

provide any analysis needed by counselors for student guidance.

Keysort Attendance Cards provide strict attendance control over each class. With this system, an absentee list is made up and distributed within minutes by the attendance office—a great deterrent to "class skippers."

Keysort is a simple, marginally-notched card system that has been providing management controls to business and service organizations for many years. Its operation requires no specially-trained personnel or expensive machines. Selected school records are provided with a series of holes around their edges which are notch-coded for fast, accurate sorting for such necessary requisites as conflict-free master schedules.

Your Royal McBee Data Processing Representative has a wealth of know-how on Keysort procedures for school requirements. Call him, or write Royal McBee Corporation, Data Processing Division, Port Chester, N.Y. for brochure SS-100.

ROYAL MCBEE · data processing division
NEW CONCEPTS IN PRACTICAL OFFICE AUTOMATION

MAKE STEPS SAFE!

MELFLEX Molded Rubber STEP TREADS

Give Lasting SAFETY
with Colorful Beauty

In Marbleized
Colors or
Black



All-black treads for extra heavy duty service are $1/4$ " thick . . . Marbleized treads in green, blue, terra-cotta, brown, gray are $3/16$ " thick. Color is permanent regardless of wear. Can be matched with riser and landing coverings for decoration. Apply permanently with Melastic water-proof bonding cement to wood, concrete, metal, tile steps. Treads are supplied trimmed to fit your steps—no cutting or waste.

MELFLEX PRODUCTS CO., Inc.

C410 S. Broadway, Akron 8, Ohio
Please send catalog and prices of Step Treads and other SAFETY products.

Name _____

Firm _____

Street _____

City & State _____

which Mr. Fisher spoke, said that they did not care if the business manager received his training, either formal or practical, in the field of education ("up from the ranks") or in industry. "What is important," remarked Dr. Brannen, "is what the man can do!"

To ensure the best candidate's being engaged, Mr. Fisher recommended a series of written tests that would cover general intelligence, provide an adequate sampling of the applicant's knowledge of the job to be performed, provide clues to his background and his knowledge of social and human relations. "But don't use a written test of personality," Mr. Fisher warned. "We know very little about what constitutes personality today, and we know very little about testing it outside of the clinical situation." Mr. Fisher recommended oral interviews, but stressed the importance of using the combined judgment of several interviewers.

The salary of the school business manager, he said, should be comparable to local industry. "This is the only way in which we can assure ourselves of finding men who are of the caliber we need," he asserted.

Boards' Great Expectations

John H. Burkhart, M.D., president of the board of education in Knoxville, Tenn., told the school people what boards of education expect of their business managers. He expressed his belief in the absolute necessity for a large school system to have in its employ a man trained in the fundamentals of business procedure and designated as the business manager. After stating that it was not his purpose to discuss the relative merits and demerits of the unit control system as opposed to the dual control system, Dr. Burkhart went on to do just that. "I suppose," he said, "there are those rare individuals who are well enough versed in the principles of educational matters and financial matters to serve in the dual role of superintendent-business manager, but this is not a likely combination of interest."

Dr. Burkhart warned business managers against "carelessness rather than dishonesty" as the cause for the loss of money to school systems. The failure to take advantage of cash discounts or better prices obtained through volume buying can result, he charged, in money being lost that could be used in other ways.

In his introductory remarks as discussion leader in the section meeting on student activity accounting, George G. Tankard Jr., specialist for educational records and reports, U.S. Office of Education, estimated that a billion dollars or more is being spent every year for school activities. He described a new handbook, "Financial Accounting for School Activities," produced in cooperation with the Office of Education and the A.S.B.O., which is to serve as "a guide

for student activity accounting throughout the United States."

Illustrating how diligently he had worked on his address to the section meeting on school food service management, John N. Perryman, executive secretary of the American School Food Service Association, came up with the "A.L.S.O." of school lunch. "What are school lunch managers in addition to those who prepare food?" he asked. Answering his own question, he said they were "Architects of the Anatomy, Leaders of Learning, Sources of Survival, and, as they try to communicate with their own communities as to the real meaning of the program in which they function, they are, hopefully, also Operators of Opinion."

The Old Hard Sell

Lamenting the fact that death and taxes do not come in that order, Gray N. Taylor, now assistant superintendent in charge of business affairs, Syracuse, N.Y., said that death is often painless as opposed to taxes, and a further difference is that death doesn't get worse every time Congress meets.

"It is unrealistic," he said, "for us to assume that the school budget is assured of automatic support, that it does not have to be sold and explained, especially today when we are faced with a hard sell market." One solution he offered was "an audio-visual presentation of your budget" to the public. "It's time that we made full use of what the advertiser has known for many years: that the seller needs to appeal to as many senses as possible in putting a product before the public," said Mr. Taylor.

Start long in advance, he said, "and shoot pictures, more and more and more pictures. You'll only use a small percentage of your shots but you need many from which to choose. Look carefully over your charts, graphs and tables." He advised school budget makers to shoot some of the maintenance work being done. These shots, he said, can well be of the before and after variety. "Be on the alert for unusual classroom or total school activities. You see, you can't wait until just before you want to present the budget." And, for the benefit of the Missourians, he proceeded to show the slides and read the script used in his hard sell of the school budget in Schenectady, N.Y., where he was located until December 1.

The Great Sacrifice

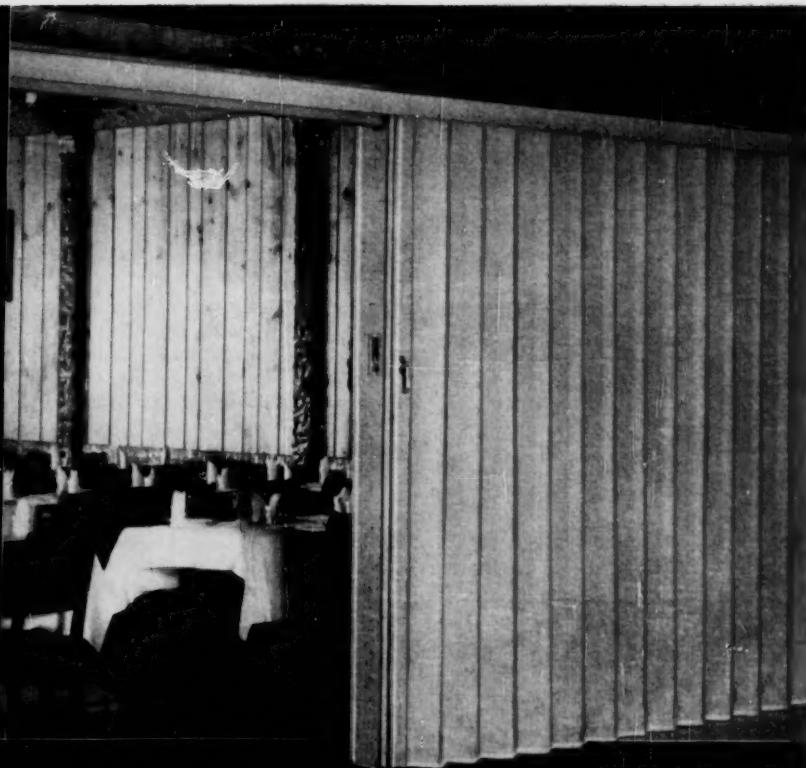
"Educational planning is the weakest link in present-day efforts to obtain quality in school plants." This assertion was made by N. L. George, assistant superintendent, Oklahoma City public schools, in speaking at a section meeting on schoolhouse planning and construction.

In outlining a method of evaluating quality in school plants, Dr. George said

**SEPARATE
SOUND
WHEN YOU
SEPARATE
SPACE**

*with
new dual*

sound-retardant Foldoor partition



Robin Hood Inn, Clifton, New Jersey

**LOOK AT THE ADVANTAGES
ONLY THE NEW SOUND-
RETARDANT FOLDOOR OFFERS**

Equivalent in sound reduction to the following types of construction materials:



3 inch Solid
Wood Door with
Cracks Sealed



2 inch Solid
Gypsum Tile
Wall with $\frac{1}{2}$ "
Plaster



3 inch Solid
Gypsum Tile
Wall



Wood Stud
Wall with Metal
Lath and
Gypsum Plaster

- Minimum space requirements • Easy to operate • No floor guides • Will not bind from slight ceiling sag • Beautiful decorator fabrics • All meeting points tightly sealed • Installed weight is approximately 5.25 pounds per square foot, about half of which is represented by the four dense layers of complementary insulation.

In Canada:
FOLDOOR of CANADA,
Montreal 26, Quebec

It's easy to see why new Dual Sound-Retardant Foldoor Partition is already being specified for so many multi-use facilities. This important Foldoor product offers all the versatile convenience and beauty of the fabric-covered folding door—combined with the practicality of a general purpose, maximum sound-retardant partition.

When it separates space—it separates sound. The advantage is obvious. Get *all* the facts . . . soon.

OTHER FOLDOOR PRODUCTS . . . Look to FOLDOOR for folding doors and partitions to meet every commercial and residential application. Both Multi-V and Multi-X models are offered in a wide variety of fabrics and colors. Full line of tracks, switches and other accessories.

SEND FOR FULL INFORMATION . . . or phone your nearest FOLDOOR distributor now.

HOLCOMB & HOKE MFG. CO., INC.

1545 Van Buren Street
Indianapolis 7, Indiana

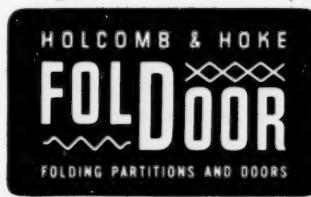
Please send me full information on: the new Dual Sound-Retardant FOLDOOR Partition.

NAME _____

FIRM _____

ADDRESS _____

CITY _____ STATE _____



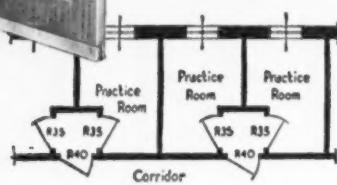


STOP

**Disturbing
Sounds**

**Where
They
Start—**

**WITH
HARDWOOD
PRODUCTS
SOUND INSULAT-
ING DOORS**



Isolate disturbing noise and sound in music and band rooms, gymnasiums, workshops and hallways with this nationally famous sound insulating door. Pre-measured for sound reduction, you know in advance the final noise factor. Sound Insulating Doors come in 35, 40 and 43 decibel degrees of transmission loss — controlling a full range of sound intensity. Write for details or consult your architect or acoustical engineer.

Get this FREE brochure

It tells in understandable non-technical language how SOUND INSULATING DOORS function — how sound intensity is measured and controlled.

WRITE BOX NS

HARDWOOD PRODUCTS CORPORATION

NEENAH • WISCONSIN

NEW YORK • CHICAGO • BOSTON • CLEVELAND

102 For additional information, use postcard facing Cover 3.

many school administrators have been so busy trying to obtain quantity, or space, that they have often sacrificed quality. "Good planning engenders good quality; poor or no planning practically foments the school plant of low quality," he said.

He defended the right of the local school authority to determine quality in its school plants, saying that each community should keep a balanced program of quality in buildings and furnishings.

Must Want To Do It

"Somebody with the responsibility and necessary authority must want to put the new property accounting handbook into practice. If you happen to be that somebody, in all probability you won't come to the point of wanting to put the handbook into use unless you find answers to some of your important problems," announced Paul L. Reason, specialist with Educational Records and Reports, U.S.O.E., in speaking to a section meeting on accounting and finance. He said the new handbook, just printed as "U.S. Office of Education Bulletin 1959," No. 22, will go a long way toward achieving comparable data on a national level.

"Over the years," Dr. Reason said, "there have been no commonly agreed upon standards to serve as guides for determining and defining the educational data obtained from the thousands of school districts in the several states." He showed the need for comparable data by pointing out that if school districts are to be able to make comparisons among themselves, if summaries, which are compiled at state and national levels, are to have any meaning at all, and if an individual school district or state or other unit is interested in making comparisons, it is necessary and vital to have such data.

Insurance Costs Too Much

Schools are paying too much for insurance, charged Ralph L. Muller, assistant superintendent from Muskegon, Mich., in an address before the section meeting on insurance management. Paid losses to schools, he said, are far less in ratio to premiums paid than the approximate 50 per cent ratio which is common to the insurance industry. He based his remark on a compilation of data from the years 1947 through 1957, in which he said paid losses on schools amounted to 34.02 per cent of the premium.

During the 10 school years, 1947-48 to 1956-57, the per capita loss (school membership) averaged 35 cents per child while premium costs amounted to \$1.08 per child. As a possible solution he outlined the "Michigan Public School Security fund," a plan proposed by the insurance committee of the Michigan Association of School Business Officials. Briefly, its concepts differ from the usual insurance program in that it proposes to restore or completely replace a disaster loss

with a modern facility, rather than to reimburse for a monetary loss based on the value of a building at a given time.

Here is the plan outlined by Mr. Muller: An annual levy of one dollar per membership child is made in each district. Reserve accumulates until it equals three dollars per child, after which the annual levy is only that necessary to maintain the reserve. Catastrophe insurance is to be purchased by the fund to provide for any unusual catastrophe loss. Loss settlements provide for 100 per cent replacement of buildings and equipment with \$100 deductible.

Mr. Muller admitted that the plan has met with some opposition in Michigan and that it has been termed socialist, subject to political manipulation, and insecure. "The unusual features," he said, "appear to be beyond the conception of many persons who are steeped in the concepts of the prevailing insurance programs, but there are many who see merit in the proposal."

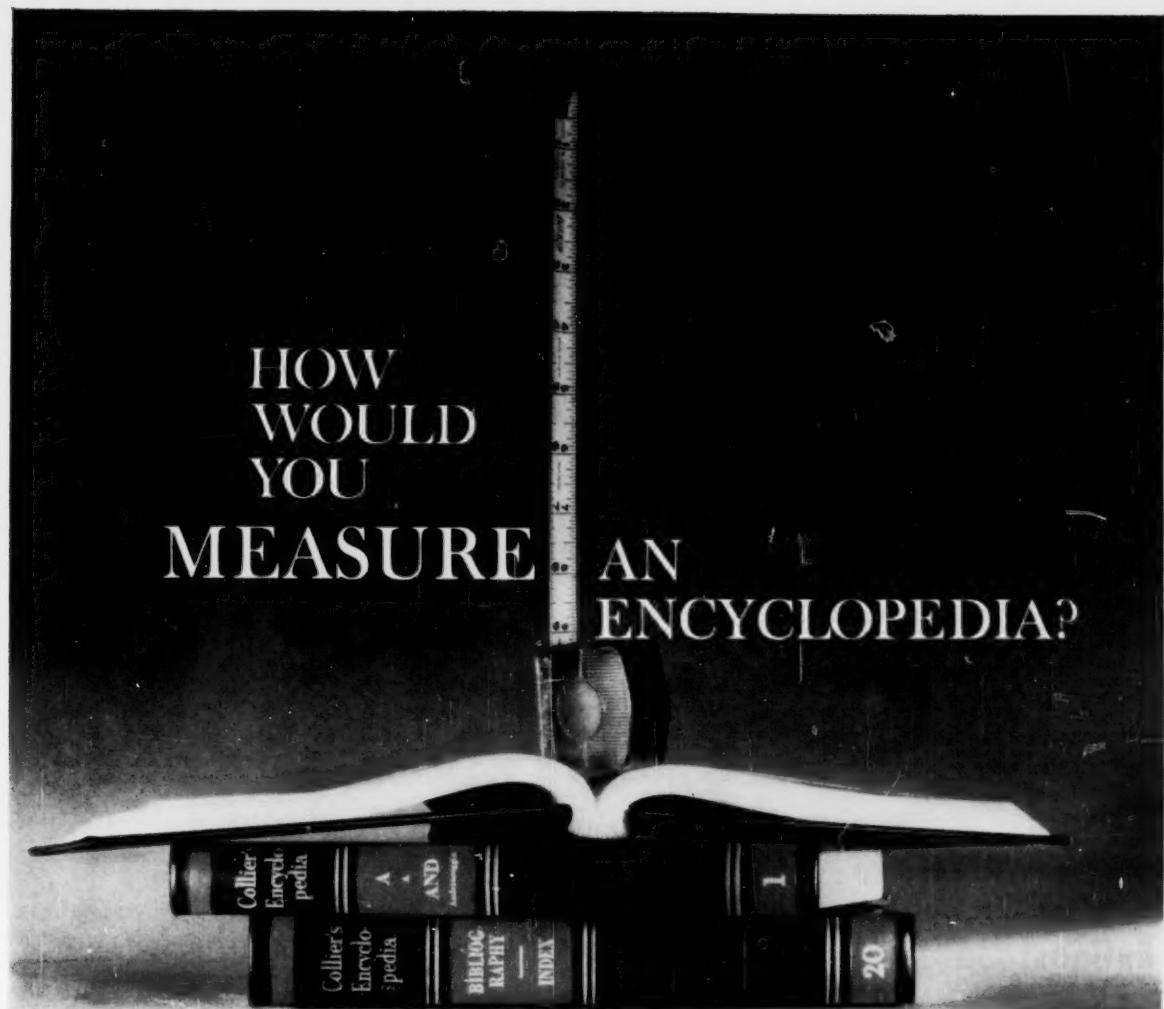
Favors Uniform Tax Measure

During the course of his address before a section meeting on accounting and finance, Edgar L. Morphet, professor of education at U.C.L.A., maintained that financing should assure reasonable equity for all taxpayers. This means, he said, that assessments should be uniform or some valid means of measuring local taxpaying ability should be devised and used. He advocated a plan of financial support for schools in each state, designed to assure a foundation program providing "essential, reasonably adequate, and well rounded educational opportunities for all who should benefit from public education." He said the foundation program should be cooperatively developed by representative citizens who have a genuine concern for public education.

Dr. Morphet suggested that there be some plan for assuring leadership and sponsorship of needed studies and analyses. Leadership should come from both educators and laymen, he suggested.

In the same section, Erick L. Lindman, chairman of the department of education at George Peabody College for Teachers in Nashville, Tenn., presented the case for increased federal school support. He pointed out that federal action has always reflected the needs and problems and conditions of the time. He said that today, when national security depends upon the effectiveness of schools, the federal government is a significant beneficiary of education. "Under these new conditions, Congress cannot disclaim responsibility if the states fail to provide sufficient funds to finance the kind of education our nation needs."

Opponents of increased federal support for education, he said, find themselves defending statements like this: Improvements in the quality of education



HOW WOULD YOU MEASURE AN ENCYCLOPEDIA?

If you were comparing **COLLIER'S** with any other encyclopedia, you would surely use these criteria:

How up-to-date is it? Collier's Encyclopedia is the first completely new major indexed encyclopedia to be published in 35 years. Through continual revision, it is kept constantly up-to-date.

How authoritative is it? Collier's Encyclopedia contains over 50,000 articles, written by the most eminent contemporary scholars, scientists and authorities...such as Norbert Wiener, Jacques Barzun, Willy Ley.

How readable is it? A simple, article-by-article comparison will quickly show you that Collier's is the most *readable* of all major encyclopedias. Yet, it is not oversimplified. The language is live, vibrant, colorful. Easily understood by students and scientists alike. Collier's Encyclopedia *communicates*. That's why you'll rarely

find all 20 volumes on your shelves. Some will always be in use.

How usable is it? Collier's easy-to-use index has more than 400,000 entries. The unique, consolidated bibliography lists over 10,000 books for further reference. Pronunciation for difficult words is given in the International Phonetic System. The text is supported and clarified by more than 10,000 superb illustrations, maps, diagrams—many in full color.

Free trial offer—or free brochure

We will gladly place a full 20-volume set of Collier's Encyclopedia in your school or library without cost or obligation. Inspect it. Compare it. Use it for 30 days. Then decide whether you want to keep it. Or, ask for a descriptive brochure. It's free. Just write Dept. 13, Educational Division, P. F. Collier & Son Corp., 640 Fifth Avenue, New York 19, New York.



COLLIER'S ENCYCLOPEDIA

Recommended by every educational and library agency that evaluates encyclopedias.

2 GREAT "HEALTH PROTECTORS"



Help prevent the spread of germs and infectious viruses in classrooms and washrooms. Holcomb's two great aerosol sanitizers-deodorants chemically scrub the air . . . leave it clean and fresh smelling. DSX-II (faintly floral) or WOODVALE (just a hint of mint) Try them both!

**For every cleaning need,
see your Holcombman!**

J.I. HOLCOMB MFG. CO., INC.
INDIANAPOLIS 7, INDIANA
Hawthorne • Dallas • Los Angeles • Toronto

Keep Sickening Exhaust Gases Out Of Your School Shop



NATIONAL Systems remove poisonous carbon monoxide gas right at the source . . . the exhaust pipe . . . and carry it to the outside without heat loss in your shop. No rearrangement of your present shop layout necessary. Choice of 6 overhead or underfloor systems, which can be engineered to each individual application using standard "packaged" kits, including motor, blower, ducting, flexible tubing, etc., ready to install. Tell your architect or write for literature.

**National SYSTEM
OF GARAGE VENTILATION, INC.**

158 W. William Street Decatur, Illinois

are not urgent at this time; needed improvements will be achieved without substantial increases in the school tax rates; all states and localities can be depended upon to make the necessary substantial increases in school tax rates promptly. He said none of these three statements can be supported by past experience.

Dr. Lindman did not recommend specific legislation. He spoke strongly in favor of the plan of Beardsley Rumel, advanced in 1955 at the A.A.S.A. convention in Cleveland. Mr. Rumel suggested a broad program of federal support for public schools, recommending that the federal government start by paying annually to all states \$20 per school child and increasing the rate until it ultimately reached \$80 per child annually.

Safety First

In presenting the school businessmen with 400 recommendations for a fire safe school, William M. Swisher, supervisor, construction and maintenance, Phoenix Union High Schools and College System, stressed the fact that these recommendations were to serve as a guide only. "There are many more items that can be added," he said. "Fire safety is a never ending job; a constant vigil must be maintained by all school employees, including the teachers. A planned fire safety program is essential."

Mr. Swisher's 400 recommendations went up and down the line from alarm systems, fire drills, inspections, fire equipment and electrical precautions to panic control. He stressed the need for cooperation with the local fire department, and recommended the appointment of a "fire marshal" in each school, one who would instruct faculty members on the use of various types of fire extinguishers.

"Custodial scheduling is one means of 'stretching' the budget to get the most out of the tax dollar," said Robert L. Lorette, professor of education, State University College of Education in Albany, N.Y. He urged those attending the section meeting on maintenance and operation to find the most efficient method of scheduling, and spoke of a "philosophy of cleaning."

Other subjects considered at section meetings included the following: wages, salaries and fringe benefits of noncertified employees, increasing local financial support, controlling school funds, and step-by-step procedures required of states to qualify for federal funds until Title X of the N.D.E.A. (improving and speeding up distribution of educational statistics).

Additional matters discussed were: economies in school transportation and money saving angles in vehicle replacement and repair, variations by states in school liability insurance, and building good maintenance into new school facilities. Food service management sections had a "think through" on problems in this area, received suggestions for centraliz-

ing the school lunch program, heard a report on work injuries of school lunchroom personnel based on U.S. Department of Labor studies. A full review of the Los Angeles fire tests, reported elsewhere in this magazine, was presented by several speakers.

One of the sessions with particularly high attendance was the panel discussion on the role of the school business administrator. Participants were executives of school administration organizations.

Jack Childress, a past president of the National Conference of Professors of Educational Administration, reported that most colleges and universities do not have a formalized program preparing for the field of school business management. This void is due in part, Dr. Childress declared, to the failure of practitioners and their associations to agree on just what the instruction should do. The best courses of this type, he believes, utilize the total university facilities and personnel, rather than only those of the school of education.

Finis E. Engleman, executive secretary of the American Association of School Administrators, said the school business official can be almost the right and left arms of the chief school administrator, then added: "But he can never be the force that controls the decisions on educational matters, and decisions on finance are always related to educational program success or failure."

William A. Shannon, executive director of the National School Boards Association, said that most school boards don't know what to expect of their financial officers because no job specifications have been set up. He then proceeded to list nine responsibilities for a business manager of a K-12 district with 1000 students. The efficient business official saves his salary many times over, Mr. Shannon said.

Membership at New High

Unaudited figures at the close of the convention indicated an association membership of 2700, a slight gain over the official record figure of 2690 on Dec. 31, 1958.

The Miami Beach registration total of 2231 marked the 1959 convention the third to the largest in association history, being exceeded by last year's New York City meeting total of 2469, and by the 1957 meeting in New Orleans when the total was 2305. A check of attendance by board members indicated that attendance was nearer 2500, the drop in registration figures this year being attributable to failure of a larger percentage of non-member groups to have their presence noted officially. Active membership registration was 950; associate, 37, and school board, a new high of 232. Included in the total registration were 707 women, high except for the New York City convention.



the smart way in—

Von Duprin. **PULL BARS**

● Von Duprin pull bars are *all* extruded aluminum or bronze. Here is a fully versatile line: reversible . . . no resizing necessary . . . modern or matching designs, each with studs to anchor A² or 88 Von Duprin rim devices . . . plain or engraved grips are curved to fit the hand—safely. Matching push plates and pulls available for vestibule doors. Complete details are yours for the asking; write for Bulletin 576.

ILLUSTRATED ABOVE: all extruded aluminum modern design with extended and engraved grips. Catalog number E282-ENG. on active door; E282DT-ENG. on inactive door.



VONNEGUT HARDWARE CO. • VON DUPRIN DIVISION • INDIANAPOLIS, INDIANA



For unmatched luxury and beauty in display and parade flags, your most economical investment is a Dettra flag. Their superior quality of materials and workmanship, their long-lasting strength and enduring beauty give you far more for your budget dollar. Exclusive with Dettra:

INDOOR DURA-LITE NYLON—the ultimate in durability. Unaffected by rain. Brilliant colors.

GLORY GLOSS TAFFETA—medium weight. Wide range of rich, fade-proof colors.

ROYAL OAKS RAYON—superb, heavy, opaque "Cordura."

Also—school flags and banners made to order. Complete line of flag accessories for school bands, stadiums, special occasions. For FREE SAMPLES, literature, prices, and name of nearest Dettra Dealer, write Dept. N.



DETTRA FLAG CO., INC.
Oaks, Pennsylvania

Quality for Rural Schools

(Continued From Page 80)

shouldn't try. Real and rich contributions come from all the cultures of the world.

"People are stronger than things" was his second point. "America is slipping away because she has begun equating richness and power and even reason for being, with highways, skyscrapers and two or three cars in every garage. For want of a goal, we are sinking beneath our own abundance.

"Finally, people can be strong only with ideas—not things. God knows we need more good scientists and more good engineers, and we can produce them, but we would only be digging our own national grave if we made everybody into one of these profiles.

"The struggle is for ideas, ideas that will excite men's minds. This is handmade for America, if we will recognize it before it is too late.

"You don't generate ideas in a scientific laboratory, not very many. You don't generate ideas on a military parade ground. You build ideas in people—in the public forum, in the P.T.A., in a convention like this, in a history class, in a philosophy class. These are the spots where we can plumb the depths of our greater potential if we are going to fire the imagination of the world."

Minority View

A Kansan, too, had been to the Soviet Union, but he came back complacent. Clifton B. Huff, head of the department of rural education and community service at Kansas State Teachers College, Emporia, proclaimed in a symposium on the pursuit of excellence in the classroom:

"Take it from a Kansas farm boy—there is not a single thing in Russian education we can see or we can use. We have the best education in the world, but we will continue to improve it."

Dr. Hansen, director of the school of education at Western State College of Colorado, talked on "The Anatomy of Quality." He has been humbled in his belief in the supremacy of American education, he said, during a seminar in the social foundations of education that he is presently conducting at the University of California while on sabbatical leave. From 30 high school teachers from all over the world, he is learning much about excellence in education. (Cont. on p. 108)

WHERE **SAFETY** CAN'T BE SECONDARY...



...select **STANDARD**

FIRE ALARM SYSTEMS

Famous "March Time" system, the preferred system for elementary schools, sounds signals at 108 times per minute—a marching cadence proved to contribute greatly to orderly evacuation. Master-coded and box coded systems—manual or automatic operation—for high schools.

All STANDARD fire alarm systems incorporate every proven feature that can contribute to *dependability* of operation, including:

- Constant electrical supervision . . . *double supervision* in many systems.
- Extra quality components—from rugged resistors and heavy duty relays to positive action stations and soundly engineered signals.
- UL Listings on all equipment.

Request New 32-page Fire Alarm Systems Catalog. Ask for Publication No. 246.

EMERGENCY LIGHTING SYSTEMS

Where *safe* use of auditorium, gymnasium or classrooms at night dictates selection of a system that exceeds minimum, "letter of the law" requirements. STANDARD emergency lighting systems feature

- Instantaneous, 100% automatic operation
- Constant and complete electrical supervision
- Automatic battery recharging
- STANDARD emergency lighting systems are listed by Underwriters Laboratories, Inc.



Request 20-page Emergency Lighting Catalog. Ask for Publication No. 243.



75 YEARS
of
progress

Pioneer in 1884—Leader in 1959

THE STANDARD ELECTRIC TIME COMPANY

89 LOGAN STREET
SPRINGFIELD, MASSACHUSETTS



Travelling Display—
Watch for showing
in your area. See
complete STANDARD Systems in
operation.

MANUFACTURERS OF:



Emergency
Lighting Equipment



Laboratory
Panels



Hospital Signalling
Equipment



Analogue
Computers



Fire Alarm
Systems

"Size isn't the crucial factor in quality education," Dr. Hansen declared. "Very small high schools and very large high schools can produce educational excellence, current studies show."

"Content is not the key to quality. Some say, just put more phonics in the reading program and Johnny will forthwith learn to read."

"Scope isn't the answer. To provide special schools for bright students, to eliminate all vocational subjects, to cut out the 'frills' won't provide quality."

"Some of these factors may improve quality; some may have nothing to do

with quality; some may result in quality deterioration."

"In a popular woman's magazine, a school critic suggests that we 'get rid of the zeros, throw out the lunkheads.' Where will they go: to the street, the beer joint, the reformatory, or where?"

"This is the day of the single formula, the quick answer, the uncomplicated solution. If your school system is poor, increase the budget, fire the administrator, hire another coordinator, or appoint a committee, take a vote, conduct a survey, let the majority rule.

"The important question we must ask is: What are the ultimate values we seek for the communities and the children we serve? We must look into our own selves to find the concept of an educational design to which we can give allegiance. We must have the wisdom to understand and to believe what we find in our own hearts — if we want to know what quality in education really is."

Douglas MacRae, assistant superintendent of Fulton County schools, Atlanta, Ga., told his audience that education is "killing off like flies" all the occupations requiring a low level of literacy. So the schools must undergird students for higher skills.

"Ignore Pressure Groups"

"Stop listening to pressure groups," Supt. John Mongon of Willingboro Township Schools, Levittown, N.J., warned the administrators. "Find out what the people think who don't come out to meetings. Sit down with such people and reassess school goals."

"Decide whether we should send the intellectually unwashed into outer darkness. Or decide whether we shall retain the individual state constitution and legislative provisions that guarantee free public education for all the ages 5 to 20."

Justice Matthew W. Hill of the Washington supreme court advised the school people to use the pronoun "we" not as a term of exclusion: we, the Democrats; we, the Protestants; we, the Rotarians; we, Labor. Make it a term of inclusion, rather.

"First be able to say 'I' with a nice balance between humility and responsibility. Pronounce 'he,' 'she,' and 'they' with understanding and concern, and be sure that God is a part of 'we.'"

Although overemphasis on science was decried, most discussion groups pointed up the need for inservice training of science and classroom teachers in atomic science both at the elementary and secondary levels. In the space age, it was pointed out, "the fairy tales of yesterday are the realities of today," and science teaching becomes almost a creative art.

The last* of the yearbooks of the Department of Rural Education, "Vocational Education for Rural America," came in for discussion. Some striking points made by this study, done in co-operation with the American Vocational Association, are: (P. 110)

*Yearbooks in rural education are being abandoned in favor of more frequent survey reports.

new safety feature!

Logan

Automatic Safety Gear
new standard equipment
on 10" and 11" models

All Logan 11", 12" and 14" lathes, as well as models 1825 and 1875 (shown) 10" lathes, now offer positive overload protection without additional cost. Exclusive Automatic Safety Gear absorbs shock of sudden overloads when threading, preventing gear damage from spindle to gear box. Also protects all gears in gear box up to 52 threads per inch. The combination of this Safety Gear and spring-loaded lever-operated clutch in apron gives the same protection for corresponding feeds. Can be factory-installed on other models of new 10" and 9" quick-change lathes. Available for present Logan quick-change lathes: \$10 for 9", 10" and 11" sizes, \$15 for 12" and 14".

For full model details and evidence of Logan's low upkeep and better service, see your Logan dealer, or write for catalog.

LOGAN ENGINEERING CO., Dept. F-1259, 4901 Lawrence Ave., Chicago 30, Ill.

economy utility beauty...

Fluor-Summerbell laminated wood beams simplified building the Hilltop High School, Chula Vista, California

Low cost school construction demands simplification in both design and construction. Chula Vista's new Hilltop High School was economical to build through the use of Fluor-Summerbell glued laminated beams. The uniformity of these strong, fire resistant structural members permitted the architect to use the money-saving modular system of design.

Construction economy came from the speed and ease of erecting these inexpensive wood beams. As they could be quickly set up on posts, the contractor had full freedom of movement . . . without any obstructions . . . to efficiently complete floors, walls, interiors and service lines. For more information on how Fluor-Summerbell Roof Structures contribute to school construction economy write to:



Architect:
Kistner, Curtis & Foster, San Diego, California
Contractor:
I.C. Curry Inc., San Diego, California
Owner:
Sweetwater Union High School District

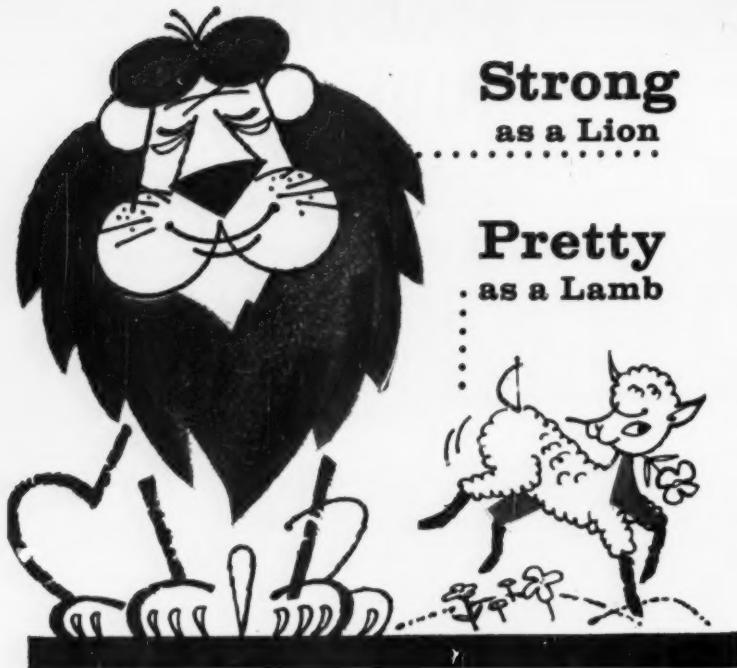
Summerbell
ROOF STRUCTURES

Fluor
PRODUCTS COMPANY

a division of The FLUOR CORPORATION, Ltd.

GENERAL OFFICES: SANTA ROSA, CALIFORNIA. Write Box 1267

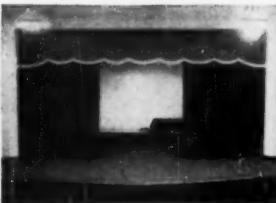
Representatives throughout the United States



**Strong
as a Lion**

**Pretty
as a Lamb**

Only DURA-DECOR*
Stage Curtains
are maintenance-free and
permanently fire-resistant



The reasonable first cost of the DURA-DECOR "family of fabrics"—of coated Fiberglas†—is the last cost

Durable Dura-Decor of strong Fiberglas cloth coated with synthetic resins is a "supported" fabric that can't stretch, shrink, fade or break.

Costly maintenance is forever eliminated with permanently fire-resistant Dura-Decor Stage Curtains, A-V Room-Darkening Drapes, Cycloramas and other school installations. Light dusting keeps Dura-Decor fabrics beautiful, clean.

Detergent and water remove extreme soiling.

Beautiful, functional Dura-Decor "family of fabrics" is available in many choice colors and six styles—two in embossed finish and four in flat finish, including a duplex style with attractive color on the front, neutral color on the back for reversible cycles or a "lined curtain" look.

*Trademark property of Duracote Corporation. T.M. Reg.

Write for illustrated catalog and swatches of the DURA-DECOR "family of fabrics" ... and for the name and address of the Major Decorating Studio nearest you qualified to fabricate and install DURA-DECOR Fabrics. Write Dept. 362



DURACOTE CORPORATION
RAVENNA • OHIO

DURA-DECOR Fabrics are used for Stage Curtains • Cycloramas • Window Drapes • Curtains for Wardrobe Openings • Protection Curtains • Room Dividers • A-V Room-Darkening Curtains • Reversible Cycloramas • Gym Floor Protection Covers



"Effective vocational education must be provided largely after full-time schooling is over — for persons already engaged in occupations. . . . Public school buildings must be planned for the use of adults as well as children. . . . Area or regional vocational schools, with cooperative arrangements among districts, is a current development. . . . Farm youngsters must be counseled and trained in occupations other than farming, as from one-half to three-fourths of them will take up other occupations outside the community in which they grew up."

New Officers Take Over

At the close of the meetings, William E. Bishop, superintendent of schools at Englewood, Colo., succeeded Velma Linford, state superintendent of public instruction for Wyoming, as president of the Rural Education Department. Winston Brown, superintendent of Waukesha County schools, Waukesha, Wis., took over the gavel of the Division of County and Rural Area Superintendents from L. M. Dimmitt, superintendent of King County schools.

In his luncheon address at the close of the conferences, Supt. Brown declared: "We must cultivate creativity in children and help it grow and flourish in adults, for ours is a period of great transition.

"In a way, the early American was like a child. The pioneer looked forward to each new day. As he pushed back the frontier, he was constantly filled with wonder, with questions, and with daring. We must be pioneers again on the great frontier of new knowledge and understanding."

Cecil Hardesty, superintendent of San Diego County schools, is president-elect of the division, and Richard Van Hoose, superintendent of Jefferson County schools, Louisville, Ky., was elected second vice president. The 1961 convention will be in Louisville.

In resolutions adopted, the Division of County and Rural Area Superintendents took a firmer stand on federal aid than in the past. It struck out at several compromise bills to the Murray-Metcalf measure that threaten state and local control of the curriculum and budget policies.

Both rural groups reiterated their demands that qualified county superintendents be appointed by elected school boards and called for strengthened support for the intermediate unit.



Turn over an RCA "Life-Tested" 16mm Projector to amateurs of any age. Before you know it, they'll be rolling a show with the pictures and sound you'd expect from a veteran. That's the way RCA engineers planned the entire RCA "Life-Tested" line, which includes:

"Life-Tested" 16mm Senior Projector

Easiest, fastest film threading in the 16mm field, operation quiet as a whisper, uses 1200-watt lamps to throw 20% more light on screen, separate loudspeaker for large areas.

"Life-Tested" 16mm Junior Projector

Built-in lubrication, designed for 1200-watt lamps which give brightest pictures, pressure guides treat films with velvet touch, easy thread-

ing in less than 30 seconds, single compact case including loudspeaker.

"Scholastic" Audio Aids

New and ruggedly-engineered line with special classroom features: Record players have metal reinforced corners and speaker grilles; guarded tone arms. Push button Tape Recorder and High Fidelity Record Player are equipped with "Tri-Coustic" speaker system for high fidelity sound reproduction. At your RCA Audio-

Visual Dealer's.

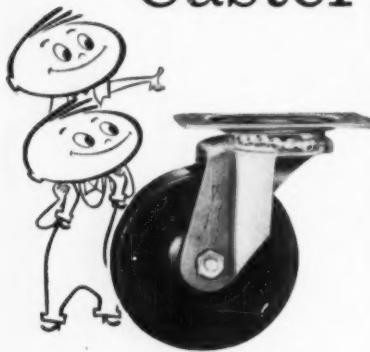
See, hear, and *operate* them at your RCA Audio-Visual Dealer's . . . or have him come to your school and demonstrate. Look for his number under "Motion Picture Equipment and Supplies" in your Classified Directory.

*Rigid endurance standards have been set for RCA "LIFE-TESTED" Projectors. Individual components as well as finished projectors are subjected to continuous testing to evaluate the durability and efficiency of all operating parts. "LIFE-TESTED" at RCA means better, more reliable performance from RCA Projectors.



RADIO CORPORATION of AMERICA
AUDIO-VISUAL PRODUCTS • CAMDEN 2, N.J.

This is a Bassick Caster



See the steel ball bearings? This is Bassick's famous two-level ball race swivel. It gives you quick and easier swiveling casters at lower cost.



See the caster wheel? Its soft rubber tread will not mark floors. It rolls smoothly, quietly. Wouldn't you like to have Bassick casters on chairs and other mobile equipment in your school?

049

THE BASSICK COMPANY,
Bridgeport 5, Conn.

In Canada: Belleville, Ont.

See our catalog in
AMERICAN
SCHOOL AND
UNIVERSITY
Or write for copy



ON THE SHELF

with James M. Spinning

Delinquent Behavior: Principles and Practices. A juvenile delinquent project, William C. Kvaraceus, director. National Education Association, 1201 Sixteenth Street, N.W., Washington 6, D.C. Pp. 350. \$2.

This second volume of the N.E.A. study, the one with the action clauses, may be labeled disappointing, but only by those who were looking for a remedy guaranteed to cure and prevent delinquency in one swift application or your money back. It could also be disappointing to those who read a few lines and exclaim, "Why, this is only rugged common sense," as if there were anything very common about that commodity.

The rest of us will be happy. For in this treatise, organized by Dr. Kvaraceus and William E. Ulrich out of the findings of six specialists and more than 500 workers and thinkers in the field of human behavior, there is excellent substance and resource material, along with the implied conclusion that the resources must often be our own.

The introductory chapter is a superb review of the first volume, "Culture and the Individual." Some of the things said there are even more clearly repeated here; things to remind us that the study is centered in the big big cities, and that we must be aware of the cultural patterns of the pavements, differences in community attitudes, limitations in the coping powers of the schools, and the lag between theory and practice.

Each of the succeeding chapters deals with a special aspect of help for the norm-violating youngster. Each has a brief discussion of principles, a short set of specific guidelines heavily asterisked, and coast to coast reports of successful or hopeful programs.

Identification of the Predelinquent. Identify the bent twig early, while there is still chance to unbend him a bit. But be careful that no youngster is labeled into accepting and fulfilling a delinquent role. Obvious trips to the psychologist or the caseworker stamp him among his fellows as either a "nut" or a "ratter."

For study and referral purposes, teachers and caseworkers must record a vast amount of personal, family and school data, including long stretches of anecdotal evidence. The record should give an indication of probable cause; whether

the difficulty seems to lie within the cultural background, the family situation, or the individual psyche.

Right here the man who has read the October 12 issue of "Time" says, "Hold on! The properly respected Glueck team has constructed impressive prediction tables that pinpoint the predelinquent 90 per cent for sure. All you have to do is check on the degree to which five decisive factors exist, all of them related to family life: father's discipline, mother's supervision, father's affection toward his children, mother's affection, and family cohesiveness. Then just by altering even two of the factors you can reduce the chances

Christmas Wish

A Baby in a manger —
And only God could see
The valiant, the forgiving Christ
This Child would grow to be.

Strong . . . to learn, to suffer,
Strong . . . man's woes to bear;
To help, to lift, to face the world,
To teach that world to share.

All babies in all cradles,
May you grow up to know
That valiant and compassionate
All men were meant to grow.

Our hearts leap up at Christmas,
Our faith is born anew
That the promise of the Christ Child
Shall be fulfilled in you.

All teachers in all schoolrooms,
All you who know the goals,
Make courage and compassion
First for growing souls.

James M. Spinning

of delinquency from nine to six out of 10. So the remedy is out of the school area entirely."

But let's read that report more carefully. It also says that to head off delinquency "the best efforts of school, church or social worker must be extraordinary." Suppose all these efforts fail to modify family relationships. The problem is still there and sitting more heavily than ever in our laps. It is just as well that the book shows how the schools can best deal with pupils, parents and other community agencies.

(Cont. on p. 114)



an IRWIN DESK helps solve school problems—



creates interest, a desire to learn and....



has many "other extra advantages"

* Learn more about the many "extra" features of all Irwin products. Free catalog upon request.



SEE YOUR NEAREST IRWIN DISTRIBUTOR OR WRITE
IRWIN SEATING CO., GRAND RAPIDS, MICH.

227 of the most reputable Audio-Visual dealers recommend Beseler's **VU-LYTE II** Opaque Projector!



AV Experts are in a position to know. Find out how YOUR School can improve the teaching process. Write for the new Free brochure: "Turn Teaching Into Learning".

CHARLES BESELER COMPANY
EAST ORANGE, NEW JERSEY

another **MRI** service

for today's
electronic
language
teaching...
you must have:

"HAVE LANGUAGE LAB: WHAT NOW?"

by Dr. Gustave Mathieu, director of the Margaret Hussey Memorial Language Laboratory, Pomona College, and Language Consultant, State of California. Authoritative booklet explains in detail basic methodological principles of effective labmanship; hints to help teachers design a language laboratory program. Single copies free. Write for information on quantities. Dr. Mathieu's discussion (with actual classroom examples) has been recorded on two tapes; available from MRI at cost: \$7.00 postpaid.

Magnetic Recording Industries
World's Most Complete Line of Language Laboratory Equipment

126 Fifth Ave., N.Y. 11 • ALgonquin 5-7250
MRI Language Specialists Available in Your Area
for Consultation

We have come a long way in facing up. I am old enough to remember the days when 14 was the legal school leaving age and when faculties congratulated themselves that a problem had been solved the minute a "trouble-maker" was expelled. It was only occasionally that anyone said, "No, not solved. Just passed along."

The conviction that "something must be done" about the delinquents is heightened by two startling pieces of testimony. The U. S. Public Health Service finds an increasingly heavy incidence of venereal disease in girls of ages 11 and 12. Whereupon the report argues that sex instruction must be given much earlier in the grades than most have thought necessary or wise. It remarks that this is no easy task, especially with children from homes where the sex pattern is anything but salutary.

The International Association of Arson Investigators cites an alarming increase in deliberately set fires, 45 to 60 per cent of them involving juveniles from 12 to 18 years old. In 1958, for the first time, a great many of these fires were set by girls.

Classroom Help. In smaller communities the teacher is often the only agent outside the home and church who is equipped to help. No matter what the size of the community, the teacher is frequently the finest person the child has ever known, bringing him his first knowledge of what an intelligent, broad-minded, big-hearted adult can be, setting for him, perhaps, a pattern of excellence.

But watch out when a teacher dislikes a particular child. No one can help a person he dislikes. In such a case a switch of teachers is in order. For the boy who dwells in a female-run household, the school will do well to arrange some association with a male teacher.

Hopefully, the teacher will be a good listener. Probably the child already has had too much experience of adults who never listen. When the child is ready to "open up," an adult ear is therapy itself.

Special Classes. "Learning the learner" is part of curriculum making. Emphasis in the regular classroom on "academic prestige" may squeeze out the nonsubscribers. For the habitual norm-violator the special class is the most ready remedy and the best. "A problem child often is more cruelly segregated when kept in a regular class which cannot meet his needs and where he is doomed to failure and frustration."

The Reception Center of Los Angeles County provides good examples of a curriculum addressed to behavior deviates in such units as "doing what it is time to do," taking turns, not smart alecking, not defacing property, and not swiping things.

Job oriented programs sell well in the special class, notably in Detroit's upgrad-

ing series with its detailed progress charts, Cincinnati's YES placement course, Newark's summer earning plan, and Washington's Odd Jobs Program with 25 centers, counseling service, and 3000 annual placements.

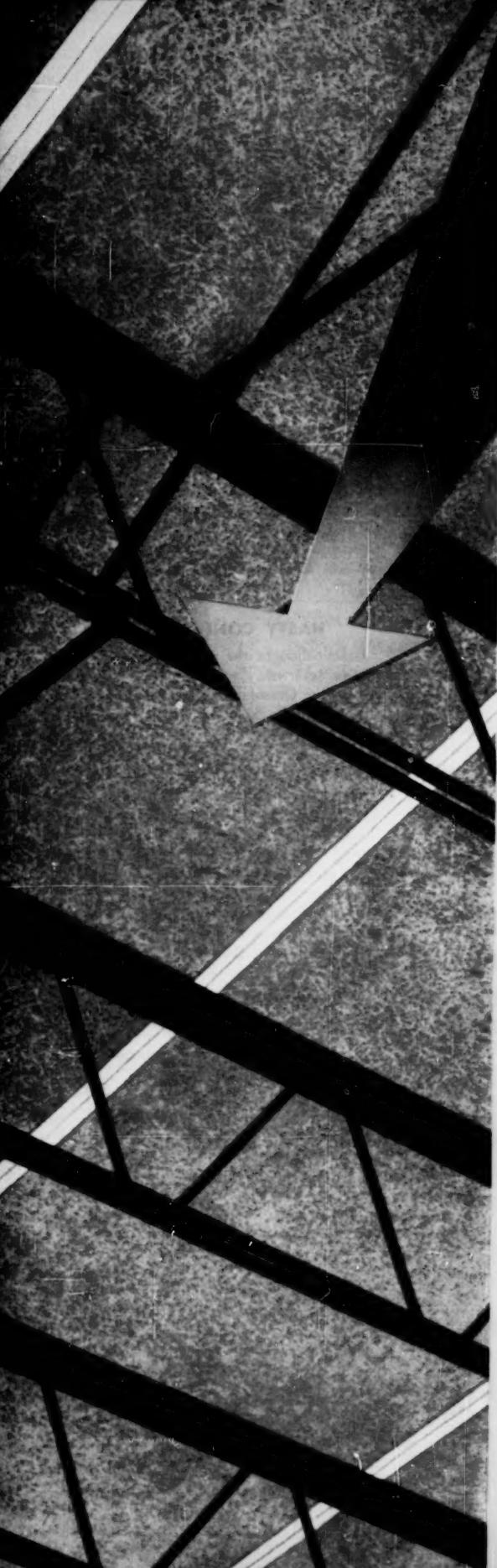
Integrated Special Services. Every large school system needs (and most of them have) and most small systems need (and few of them have) a battery of special personnel, psychologists, psychiatrists and psychiatric caseworkers, physicians and attendance staff, organized as teams to diagnose, advise about, and treat deviate children. They recognize, as we all should, that what is on a child's mind is frequently more important than what is in it, and may effectively prevent anything from getting in.

Even when the services fail to show any immediately visible improvement in children, New York City notes, there is value in psychotherapeutic first aid. It may hold the line until treatment or growing maturity can catch hold.

A Detroit report remarks that little lower class guys and dolls reject reading texts written around middle class ideals and sweet, ever obedient milk-and-water children. Reading matter should be of a type more acceptable to those who have to read it. Does this mean that we should go in for picaresque fiction and the exaltation of the whole lower class pattern? If I thought so, at least one of my eyebrows would be exalted, permanently. And I don't like milk and water either. I content myself at this point with plugging the Rochester Reading Series. It was written by special class teachers for slow readers and organized around simple vocational interests. The books are marketed by Syracuse University. Any incidental profits go not to the dedicated authors but to the help of handicapped pupils.

Working With the Family. It is too easy to dismiss the lower class parent with negative judgment. Yet he needs some feeling of acceptance and a real welcome to parent-school activity. Those from alien cultures may not know what is expected in America. They may be blocked by their own problems or their immaturity. Where there is no parent, or none functioning as such, the school is driven to finding a parent substitute figure, perhaps from its own staff.

In 1950 the mothers of 5 million (of the 16 million children under 5 years in this country) had no more than an elementary school education, if as much. Mothers of another 9 million had 1 to 4 years of high school. The mothers of the other 2 million had had some college. Is it any wonder that New York City reports that 46 per cent of the parents of norm-violators denied that any problem existed, or that 35 per cent had too many problems of their own to be concerned with those of their children? In 13 per



*Upon reflection,
your best selection for roof decks*

INSULROCK.

*with its new,
exclusive factory-finished ceiling surface*

INSUL-GLO 70

60 to 70% light reflectance possible from beautiful exposed ceilings when you specify INSULROCK for your roof decks. Insul-Glo 70, developed by Flintkote, coats the underside of INSULROCK with a new, white, bright light-reflecting factory finish.

Lasting beauty comes bonded into INSULROCK's ceiling surface. An exclusive, indurating, cementitious coating keeps your handsome ceiling smooth, tough, and abrasion-resistant during application and for years of service.

INSULROCK, of course, is a strong, non-combustible, economical single-unit roof deck. Its factory-controlled quality assures uniformly high insulation and acoustical performance. INSULROCK answers all your roof deck requirements for many-duty strength and beauty.



*Manufacturers of
America's Broadest Line
of Building Products*

INSULROCK COMPANY

Division of The Flintkote Company

Executive Office: New York, New York
General Sales Office: Richmond, Virginia
Plants: North Judson, Indiana • Richmond, Virginia
District Sales Offices: Atlanta, Georgia; Cleveland, Ohio; Dallas, Texas; East Rutherford, New Jersey; Kansas City, Missouri; Los Angeles, California

*A trademark of The Flintkote Company

cent of the cases there was no mother at all or one who was seriously ill. An Oregon study showed that 6 per cent of the families accounted for from 55 to 70 per cent of the case loads, with family patterns cascading down the generations.

I am surprised to find in this volume relatively little reference to parent education. From the reports that parent contact can often be achieved only when school workers are available after school hours, it is clear that parent education groups are hard to organize. But I'm thinking of classes in which high school boys and girls on the eve of school leaving can be taught something about handling the new generation. Perhaps their consciousness can be dented with the sometimes surprising idea that family life can be rich and satisfying and that there are ways to bring up kids to be happy and good citizens . . . and an obligation to make it so.

Let us say in effect: "Here's a list of things to be saved carefully until your first baby comes. It is not given you in criticism of your present family. But if you don't follow it with your children, it will be a criticism of you."

Working With Enforcement Agencies. "If the home and school err, it is often on the side of overprotection from legal agencies." Each step from warning to arrest to probation to suspended sentence

to commitment further fixes a youth's identification as a delinquent or a criminal. When a child is out of school as the result of court action, a plan should at once be set up looking toward his ultimate return.

Del Norte County, in California, has a program to show predelinquents how stupid and unprofitable crime is. Paroled prisoners are sometimes persuaded to appear and testify for virtue. In Pontiac, Mich., the juvenile court offers aid to groups working on delinquency problems. Any citizen of good repute may notify cases for investigation and follow-up to a joint citizens and school board committee. The children's bureau of Passaic, N.J., after noting that parents should understand that "doing for" and "giving to" are no substitutes for affection and acceptance, reports that 56 per cent of preferred delinquents do not repeat and another 18 per cent repeat only once, adding that only 5 per cent of adult offenders have ever been known to the bureau.

Take a look, too, at the work of the Boston Citizenship Training Group, which for two after-school hours each day holds briefing sessions on accepting responsibility for one's own acts. Attendance is compulsory, but after "graduation" nine out of 10 come back voluntarily for refresher visits. Observe that 69 per cent of these adjudged juvenile of-

fenders have marked reading disabilities . . . and check your remedial program.

Working With Other Community Agencies. Delinquency is everybody's business. The school can not go it alone. The last chapter cites report after report from places where the schools don't have to go it alone. There is the Illinois Youth Commission Project, which attempts to bring hope to devalued neighborhoods, replacing apathy with a desire to reach attainable goals; the antivandalism project, set up by four Chicago principals, which works with Scouts and Cubs and all other interested groups; the Hialeah student project to win back for teen-agers their good name; New York City's all-day neighborhood schools with seven additional teachers and a psychiatric social worker for each, and New York's Centurions, "a Christian gang."

The Centurions carry no switch knives or zip guns and they read the Bible. Forty per cent of the members have been on

HASTY CONFUSION

Gracie thought the ninth grade social studies text said "some awful things." But neither Gracie nor Mr. Spinning, who writes "On the Shelf," was so deluded as to ascribe to Clifton Fadiman "that book," as was said on page 102 of the November issue.

An assistant editor, coming to a hasty conclusion, inserted Fadiman's name in the copy, and the result was a hasty and lasting confusion among readers. The hasty ass't. ed. is now repenting, but not "at leisure," as both the editor and, we trust, Mr. Spinning have forgiving hearts.

No apologies necessary to Mr. Fadiman! If he had written the social studies text, Gracie would have been charmed by those "awful things."

probation, but since joining none has been charged with an offense. Taught real boxing and judo, these lads are so tough they don't have to fight to prove it. In St. Paul, likewise, potentially dangerous groups have been infiltrated by members of the Roving Group Work Units and "corrupted into goodness."

Surely the reader must be impressed by the tremendous effort good, solid lay citizens are making all over the country to work wholeheartedly with each other and the schools to prevent and stem the tide of errancy. They will be helped by the N.E.A. study. It most valuably shares with them its good counsel and its reports of hopeful enterprises. The two volumes have had a good lay press.

Certainly this treasury of sound sense and tested experience belongs on the shelf of every school leader . . . but not until it is dog-eared with study. We can use it in our business, and in the Lord's. ■

NEW

Lighting Development

LOW IN COST

and Indestructible

WITHOUT UNSIGHTLY GUARDS

CEILING or

PENDANT TYPE

For
GYMNASIUMS
AUDITORIUMS
REC. ROOMS, etc.

Maximum lighting efficiency and correct distribution with our unbreakable prismatic lens bowls. Provides lighted background for objects in flight. Perforated reflector ventilates unit and filters light to ceiling. Uses either 300 or 500 watt lamp. Lamps may be changed without ladders or scaffolds by using vacuum lamp changer. EITHER CEILING MOUNTED OR PENDANT. Catalogs with distribution-coefficiency charts are available. Our representative will show samples on request.

SOLO THROUGH ALL RECOGNIZED ELECTRICAL JOBBERS IN UNITED STATES AND CANADA

Luminous EQUIPMENT COMPANY
Sole Distributors in High Standard Quality Lighting Products
1325 WEST WEBSTER AVENUE • CHICAGO 14

UL

You can prevent many colds with Antiseptic **HUNTOLENE® !**

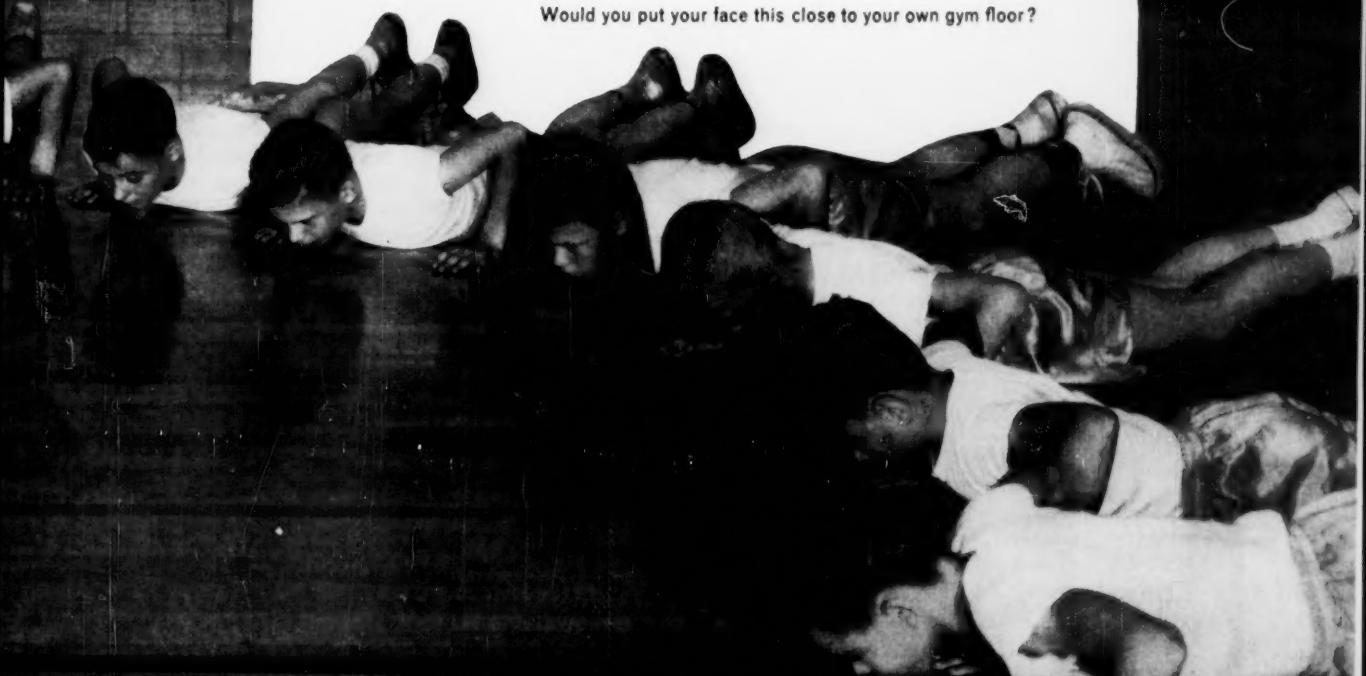
Floors are germ traps. Disease bacteria are constantly settling to the floor where they multiply rapidly, *unless inhibited*. You can do much to reduce this health hazard with the dust mops now used to "clean" your floors, simply by spraying Huntolene Antiseptic Dust Control on the mopheads. Huntolene inhibits germ growth, slows or stops their multiplication, even protects the maintenance man by killing bacteria in the mop.

Tests in our files conclusively prove these benefits. Ask your Huntington representative about this unusual, low cost product which does so much to protect health. *Huntington Laboratories, Huntington, Indiana, Philadelphia 35, In Canada: Toronto 2.*



Huntolene Antiseptic Dust Control has been rated for safety by Underwriters' Laboratories regarding flammability.

Would you put your face this close to your own gym floor?



HUNTINGTON

...where research leads to better products



Hundreds of schools select **GENEVA CABINETS**

for their durability, low maintenance and beauty

Since Geneva Cabinets "have gone to school" they have won unprecedented acceptance from coast to coast. These are the reasons: Widest standard cabinet selection! Functional superiority! Greater design and layout flexibility . . . true economy and utility.

Specify GENEVA Cabinets of Steel they offer unmatched durability, far less maintenance—with famous "whisper quiet" quality. You'll find GENEVA'S extensive custom cabinet and planning facilities capable of meeting your needs.

ask about all-new

Impasto

GENEVA'S exclusive textured cabinet finish of etch-line patterned steel. It has the strength of Gibraltar . . . new warmth in appearance . . . superior stain and mar resistance.



Write for complete information

GENEVA MODERN KITCHENS

DIVISION OF ACME STEEL COMPANY

Dept. NS-12-59, Geneva, Illinois



Administrative Study

(Continued From Page 78)

also mentioned as requiring extra time. These reports suggest that school board members are diligent and generous of their time in activities that will help them formulate good policies for the conduct of the schools.

Of 573 board members reporting on whether they made formal contact with suppliers' salesmen, more than half said "rarely" or "never." Administrators reported differently on this question, with 76 per cent of the 912 respondents reporting "rarely" or "never" in regard to board contact with salesmen. In contrast, 95.5 per cent of administrators reporting said that they (or members of their staff) frequently or occasionally see suppliers' salesmen during the regular working day.

It may be seen from the answers to these questions that board members do not make it a practice to discuss products with salesmen, whereas this is a regular part of the job of the administrative office in the great majority of school districts.

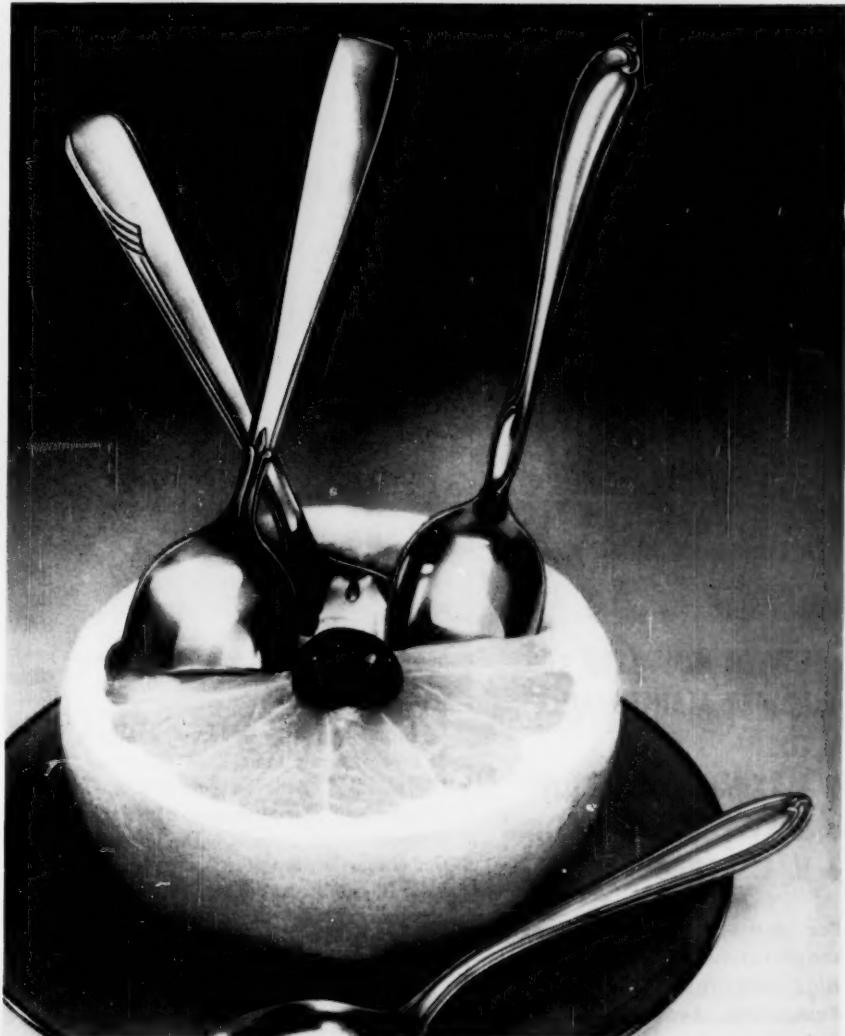
Administrators Select Products

In these studies, both board members and administrators were asked the question: "Who ordinarily selects and recommends for purchase the following items (by brand or make)?" The answers, shown in Table 3 indicates that the administrator is the dominant influence in the selection of most products. Since the question allows a multiple choice and includes the architect, it will be seen that in most districts the function of product selection lies mainly with the school administrator.

Both studies were concerned primarily with the budgeting and purchasing part of the business management function, since it is in matters of product selection and allocation of funds that the lay board member could meddle disastrously if he attempted to make judgments without full understanding of the educational requirements that bear importantly on the suitability of equipment and materials.

These studies show that, in some school districts and in sharply varying degrees, some school board members do sometimes undertake to share in decisions that they may not be competent to make. On the other hand, such interference is, by far, the exception rather than the rule. ■

SMARTLY STYLED



Left to right: ACCENT*, extra-heavy; VALOR*, heavy; SHASTA*, extra-heavy; PARADE*, heavy, in foreground.

STAINLESS by ONEIDA

Oneida, the leader in the stainless field, has just the pattern type, the fine quality, the exceptional beauty you want on your tables. Ask for it. Two outstanding American-made lines—extra-heavyweight stainless, grade-rolled for perfect balance and thickness and budget-priced stainless especially made for quality good looks and the ability to stand hard wear. You'll find top-selling patterns in any price range you want. And this finest-quality stainless is polished mirror-smooth for easier upkeep. Your food equipment dealer can supply you with complete list of prices quickly and easily.



See your food equipment dealer or write Hotel and Restaurant Division

ONEIDA SILVERSMITHS Oneida, New York

ONEIDACRAFT® DE LUXE STAINLESS (EXTRA-HEAVY); ONEIDA® STAINLESS (HEAVY)

*Trademarks of Oneida Ltd.



By EDGAR FULLER

from WASHINGTON



WHITE HOUSE ENTRANCE

COMPROMISE for school construction bill hits usual snags. Mr. Bailey wants written commitment from President Eisenhower.

While Congress is in recess, negotiations are being held on a compromise school construction bill. A group of citizens, led by George J. Hecht of New York and Eric Johnston of Washington, are active in the movement, along with the Administration, members of Congress, and some educators.

Chances for agreement are dim. All the old differences on such tough issues as formulas for allocation and amount of federal funds remain. In addition, Cleveland M. Bailey, House subcommittee chairman, demands written assurances from President Eisenhower that he will support a compromise. Education organizations prefer broader approaches to the financial problem and will decide what position to take after the compromise proposal, if any, materializes.

DR. CONANT'S LATEST BOOK disappoints federal support protagonists. Former Harvard president opposes relevant legislation. Wants Congress "to cajole or coerce" the states for more funds.

Dr. James B. Conant has written another book on education, "The Child, the Parent, and the State." It follows several remarkable contributions, including "The American High School Today," published early in 1959. The earlier report dealt with the purposes and programs of American high schools, was based on extensive investigation, and made definite recommendations for stated reasons.

"The Child, the Parent and the State" enriches the themes of these earlier books, advises citizens wisely on school problems, and elaborates on the national and international importance of education. Then the author adds brief comments on local-state-federal financial and other administrative relationships in public education that seem to be less accurate or helpful than we have come to expect from him.

Dr. Conant believes that almost all states need massive financial assistance for public education. He places the additional funds needed at several billions of dollars annually, using most often an estimate of \$6.8.

Departing from his previous practice, however, Dr. Conant recommends no program. At a press conference on October 23, according to reliable reports, he denied that he was opposed to massive federal financing for schools. At the same time he opposed all relevant legislation now pending in Congress, and described no other legislation he would support.

This book raises so many vague doubts about each feasible course of federal action that the total effect appears to be opposition to any action. It leaves the impression that Dr. Conant is searching for new ideas, but that his true preference is ". . . to use in one way or another the power of Congress to cajole or coerce the states into putting their own financial houses in order. . . ."

Dr. Conant comments that substantial federal support would mean "the opening of a new chapter in public education," and asserts that unless a large federal agency administers it in

Cincinnati SYSTEMS

Cincinnati

TIME RECORDER CO.
1738 CENTRAL AVE.
CINCINNATI 14, OHIO



Walt Disney Elementary School, Tullytown, Pennsylvania. Architect: John Carver, Philadelphia, Pennsylvania.

FOR Safer SCHOOLS USE MISCO WIRE GLASS

Offers Proven Protection In Doors . . . Windows . . . Partitions . . . Skylights

The safety of our students depends upon the materials used in our school buildings. Many large loss fires result from exposure through ordinary glass. Give your students the positive protection of wire glass and help avert tragic and costly fire losses. Mississippi Wire Glass tends to help bottle up fire. Don't bargain with safety. Specify Mississippi Wire Glass, the original solid wire glass upon which the standard was based in 1899 . . . the standard today by which all others are judged. Available in "see through" or obscure patterns wherever quality glass is sold.



Write for free catalog.
Address Department 15.



Trial by Fire

PROVED WIRE GLASS BEST

Wire Glass is the only glazing medium that can successfully withstand the fury of the flames in this dramatic test, formerly required by Underwriter's Laboratories for certification of the glass as Fire Retardant No. 32. In the test, the glass is first subjected to temperatures up to 1600° F. for 45 minutes and then held at this point for an additional 15 minutes. Then a 1½" stream from a fire hose is applied at 35 to 40 lbs. pressure. Passing the test requires that the glass remain in the sash substantially unchanged except for cracking due to thermal shock.

Insist on GLASS for Glazing

MISSISSIPPI
GLASS COMPANY

88 Angelica St. • St. Louis 7, Missouri

NEW YORK • CHICAGO • FULLERTON, CALIFORNIA

detail there will be irresponsible government. Few educational administrators will agree, and many believe such an increase in federal personnel would be undesirable. The state systems that distribute more than \$5 billion of state funds to local school districts each year could be used for federal funds also, but the book is silent on this possibility.

Educators will question many of Dr. Conant's approaches in this field. To illustrate, let us examine his reasons for opposing flat grant allocations to the states. First, he admits that flat grants would lessen federal controls,

which is desirable. Then he asserts that there are two "grave difficulties" in justifying such flat grants.

The first is that the flat grant "... largely ignores the truly desperate straits of the very poor states." Here Dr. Conant makes the mistake of emphasizing the educational needs of entire states instead of the relative needs of local school districts within each state. Nowhere does he recognize that federal funds granted on a flat grant basis to the states can be distributed on an equalized basis by the states to local school districts, and that differ-

ences in financial ability vary much less among states than among local districts within any state.

With federal allocations to the states on a flat grant basis, state distribution of federal funds to local school districts would favor the "very poor states" because their taxes would be less than one-third as much as if they were "cajoled or coerced" into levying the extra taxes on themselves as Dr. Conant suggests. Mississippi, for instance, would receive more than three times as much as it would pay into the federal treasury to accumulate the funds involved, and New York would pay twice as much in federal taxes as it would receive from its share of the grants. Opposition to flat grant allocations may be justified for small funds, but hardly for \$6.8 billion annually when the spread in financial capacity among the states is declining.

RICH STATES have poor districts, too. Equalization of federal support for schools can be done best by state plans.

The second difficulty noted by Dr. Conant is that flat grant allocations will tempt the richer states to indulge in state or local tax saving or, should Congress bar that, would force rich states to spend more on schools than necessary.

Assuming that there is a federal foundation program, as Dr. Conant does, there are enough relatively poor districts in the rich states to utilize large federal funds. If the portion not required by the foundation program results in slightly lower local school taxes in their richest districts, there would still be no net tax saving in any rich state. This is because a state such as New York, and especially its taxpayers in the richest school districts, will pay \$2 or more in federal taxes for each federal dollar they receive. Congress is not likely to deny some share of large-fund federal grants to the poor school districts in such states as California, Pennsylvania, New York, or Ohio that are in more serious need than the wealthier districts in Mississippi or Texas. Is it not fair to consider, as Congress must under any large-fund plan, where the money comes from to pay for it?

On these and comparable points, Dr. Conant creates his own dilemma. The states have established finance systems that promote equalization among local school districts in every state. Federal funds added to these



...about towel service for school buyers

Towel consumption goes up as the quality of the towel you buy goes down. But no matter how good the quality, there will be towels wasted unless the dispensing is controlled.

MOSINEE TURN-TOWLS have proved in hundreds of school washrooms that they will cut towel consumption from 40% to 50%. That means a lower cost for a better quality towel and for better towel service.

It means less loading of cabinets... fewer waste towels to handle for custodians... fewer towels to store during the school year. Holds down maintenance cost.

MOSINEE
Sulphate Towels

BAY WEST PAPER CO.
1106 West Mason Street,
GREEN BAY • WISCONSIN
A Subsidiary of Mosinee Paper Mills Co.

Get the facts on
Turn-Towl savings.
Write for the
name of your nearest
distributor.



Follett Publishing Company's "Beginning-to-Read" series features better-looking, better-wearing bindings of new Du Pont vinyl "PX" cloth.

Now—new vinyl PX® cloth creates brighter-looking, longer-lasting bindings for schoolbooks

From the miracle of modern science comes a binding material that will help set new standards of durability for schoolbooks. This material is Du Pont's new vinyl-impregnated "PX" cloth. Tests prove it is 10 times more scrub-resistant than pyroxylin materials of the same grade.

Bindings of new vinyl "PX" cloth

resist abrasion that wears hinges and corners—books last much longer. And because new vinyl "PX" cloth prints better in brilliant color, you can create brighter, more appealing books.

Bindings of new vinyl "PX" cloth can contribute greater wearability to your schoolbooks . . . make possible substantial savings in replacement

costs. Ask your bindery or publishing house for sample swatches.

"PX" and "Fabrikoid" are Du Pont's registered trademarks for its impregnated and coated bookbinding materials. Patent applied for vinyl "PX" cloth.

PX Cloth and Fabrikoid®



REG. U. S. PAT. OFF.

Better Things for Better Living . . . through Chemistry



**Ideal
for
Every
School
Need!**



KINNEAR Metal Rolling COUNTER SHUTTERS

Straight up-and-down shutter action — *no space wasted*.

Coils completely out of the way — "out of sight" when raised.

Smooth, clean-lined beauty when closed — blends with any surroundings or decor.

These and other features make Kinnear rolling shutters ideal for any counter area. Slats of extruded aluminum, or roll-formed of aluminum, steel or other metals, interlock into a smoothly coiling curtain — a closure principle originated by Kinnear!



1/2 size

Section of Kinnear midget-slat in extruded aluminum

KINNEAR
ROLLING DOORS
Saving Ways in Doorways

Kinnear "midget" slats feature a flat outer surface that stays dust-free... assures a neat, clean-cut appearance... provides full protection when closed... can even be installed to "disappear" into ceiling areas in most new construction.

Kinnear midget-slat counter shutters are ideal for openings up to 20' wide (shutters 14' wide or more operate by hand-crank). The shutters can be used in openings of any practical height.

Write today for full details and specifications!

The KINNEAR Mfg. Co.

FACTORIES:

1200-30 Fields Ave., Columbus 16, Ohio
1742 Yosemite Ave., San Francisco 24, Calif.
Offices and agents in all principal cities

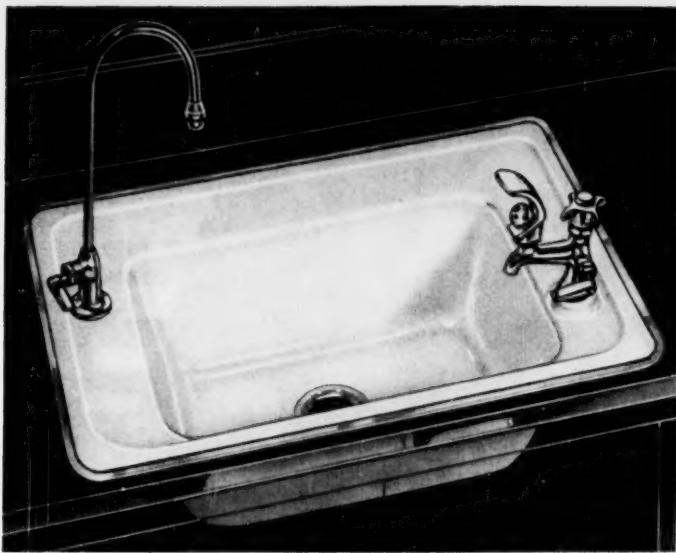
systems would be equalized twice under any formula, moderately upon allocation to the states and then more vigorously upon allocation by the states to local districts. This equalizing effect is strongly inherent in the federal tax system under flat grant allocations, and the states would pinpoint the need by distribution of massive federal-state funds even on their present 58 per cent equalization and 42 per cent flat grant pattern.

Perhaps no citizen has contributed more as a spokesman for American education than Dr. Conant, or is held in higher regard generally. We hope he will examine state aid systems and their financial effects in local districts, and evaluate administration of current federal grant-in-aid programs for education. We believe these activities would lead him to a specific large-fund federal support program he could recommend without fear of federal control of education.

WOMEN REPRESENTATIVES of three nationwide education groups are "invited" to a meeting but not "admitted" at New York club."

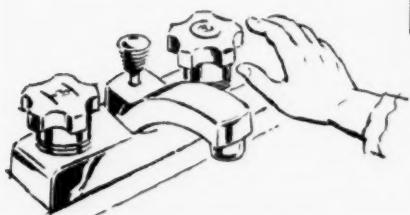
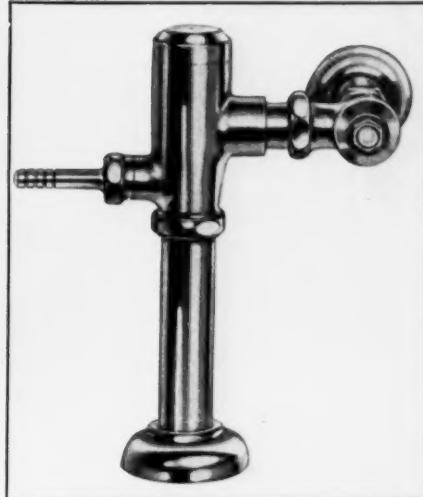
An important new organization in American education, seeking to achieve rapport with and support from major educational associations, recently invited them to send representatives to a meeting at the University Club on West 54th Street in New York City. Three days before the meeting, the executive officer of the American Council on Education's committee (for the field concerned) was notified that she would not be permitted to attend because women were not allowed in the club. Then the representative of the Council of Chief State School Officers discovered, quite accidentally, that she could not attend for the same reason. Both ladies stayed in Washington. But the representative of the National Education Association, also on the distaff side, did not have the advantage of advance information. That busy department head made the trip to New York and was turned away at the door of the club.

Need More Classrooms. Demands for classroom space will rise "at an astonishing rate" in the next 20 years, Robert C. Cook, president of the Population Reference Bureau, recently warned. City and suburban school planners were told that "planning must begin for a rapid expansion of the school population and must be in terms of each individual community, not in terms of national averages."



TECH SINK. Twofold convenience for classrooms. Made of acid-resisting enameled iron with high-arched spout for filling receptacles, bubbler for drinking—both locked to rim to prevent turning. New size, 24 x 18" permits compact, counter-top installation. Other sizes, 24 x 20", 30 x 20".

METRO FLUSH VALVE. Piston-type; all-brass, chrome-plated. Trim, attractive appearance, reliable action. Light handle pressure in any direction trips valve for positive, self-cleansing flush that can't be prolonged by continued pressure. Easily accessible screws regulate duration. O-rings prevent leakage.



CENTRA LAVATORY FITTING.

Constellation series. Genuine brass throughout with durable polished chrome finish. Easy, finger-pressure operation. Interchangeable valve unit has a non-rotating movement which eliminates wearing action of the screw type valve.

KOHLER PLUMBING FIXTURES

**have the rugged quality
school use demands**

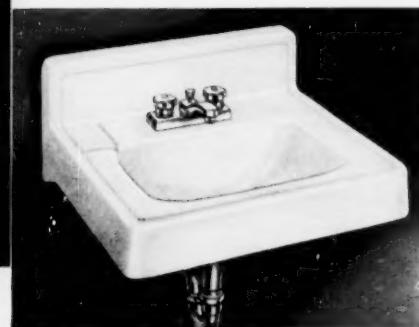
Because school plumbing gets rough treatment from today's active children, school administrators make sure of long-term dependability and low maintenance by choosing first quality fixtures by Kohler. Clean-cut in design, they conform to modern functional school buildings.

Kohler fittings possess the durability for long trouble-free service that only genuine all-brass construction can provide—and all have interchangeable valve units for economical maintenance.



JUNEAU LAVATORY.

Vitreous china. Designed for heavy strain-resistance—wall-bearing surface is 11 1/4" with screw openings at base. Kohler lavatories have anti-splash rims, front overflow. 19 x 17".



GREENWICH LAVATORY. Vitreous china. Trim, modern, straight-front design gives neat appearance to units installed in rows. Five-inch wall-protecting back with integral brackets at base for firm wall anchorage. 18 x 15", 20 x 18", 24 x 20".

KOHLER Co.
Established 1873
KOHLER, Wis.

KOHLER OF KOHLER

ENAMELED IRON AND VITREOUS CHINA PLUMBING FIXTURES • BRASS FITTINGS
ELECTRIC PLANTS • AIR-COOLED ENGINES • PRECISION CONTROLS



TRUSCON CERTIFIES EVERY "O-T" STEEL JOIST. Truscon now offers your architect and contractor, upon request, written certification that the "O-T" Steel Joists specified for your school are manufactured in accordance with the standards of the Steel Joist Institute. This is your assurance of predictable, dependable load-bearing. No extra cost for this protection. Send for facts.



REPUBLIC BOOK SHELF UNITS meet the changing needs of every school. Sturdy, steel shelving is adjustable to any book height. Units are available in sizes 36" wide, 9 1/4" or 12 1/4" deep, 84" and 90" high. Send for information.

... pride of any school

REPUBLIC STEEL LOCKERS

There's a certain pride in being leader of the class. Be it ribbons, cheers, letters, or the medallions that identify Republic Steel Lockers in schools everywhere.

Republic Steel Lockers offer school management administrators built-in beauty and economy that go with the pride of any school. Interiors are spacious, well-designed for convenience and ventilation. Hooks and hardware are the best obtainable. Positive locking and heavy-duty hinges assure complete protection of personal effects.

Republic Steel Lockers are *Bond-erized* for long life under continuous conditions of hard service. This exclusive Republic feature provides a superior base for enamel and protects against rust and corrosion. Restricts damage due to bumps,

scratches, and abrasions to the site of the injury itself.

Republic Steel Lockers are available in a choice of lighter, brighter colors and feature any of the popular locking devices including the new foolproof handle with built-in padlock strike to protect the beautiful locker finish. This handle is attached with a tamper-free Gulmite screw and lockwasher.

And Republic's Berger Division Planning and Engineering Service takes the whole job off your hands. Recommends the right locker for the job in either up-right or recessed styles and assumes full responsibility for the complete installation.

In designing, building, remodeling school facilities—let Republic's Berger Division help you with school locker planning and installation.

CALL YOUR REPUBLIC REPRESENTATIVE, OR WRITE...

REPUBLIC ELECTRUMITE® ROUND, RECTANGULAR, AND SQUARE TUBING is ideal for columns, supports, mullions, rails. Square tubing gives a handsome, contemporary architectural affect. Tubing is strong, too, strongest of all structural shapes. Produced by Republic's Steel and Tubes Division, world's largest manufacturer of specialty welded tubing. Available in rounds up to 6 inches, squares up to 5 inches, rectangular sizes in peripheries to 20 inches, wall thicknesses up to $\frac{1}{4}$ " wall. Write today.

REPUBLIC STEEL CORPORATION

DEPT. NS-7572-R
1441 REPUBLIC BUILDING • CLEVELAND 1, OHIO

Please send more information on the following Republic products:
 Republic Steel Lockers Republic Bookshelf Units
 Truscon "O-T" Steel Joists Republic Architectural Tubing

Name _____ Title _____
Firm _____
Address _____
City _____ Zone _____ State _____

REPUBLIC STEEL



World's Widest Range of Standard Steels and Steel Products

NEWS IN REVIEW

ETV Courses Will Be Transmitted From Circling DC-7; Six States To Benefit From Experiment Next Fall

CHICAGO. — A "flying TV station" will broadcast instructional programs to schools in six midwestern states in an experiment to be conducted next fall. Announced recently at a news conference in the office of the Chicago Board of Education, the \$7 million project will be guided by the Midwest Council on Airborne Television Instruction.

Courses on video tape will be transmitted from ground based facilities at Purdue University to a circling DC-7, some 20,000 feet over the north central part of Indiana. The programs will be retelecast to the schools and colleges that choose to participate. Taught by outstanding teachers to be chosen from a talent search, the courses could reach 5 million students in parts of Illinois, Indiana, Kentucky, Michigan, Ohio and Wisconsin.

The experiment will begin with two conventional "wide-band" UHF transmitters aboard the aircraft, so that two programs may be televised at once. An unusual feature of the experiment will be the testing of "narrow band" telecasting on two special channels, which will carry the same programs as the conventional UHF channels. "Narrow band" telecasting has the potential of doubling the number of courses that could be carried over conventional channels.

The plane will fly six hours a day, telecasting 12 half-hour programs per chan-

nel. As the project develops after the first year of operation, the number of simultaneous telecasts might be raised to six, providing 72 lessons and offering a greater variety of courses. Estimated coverage will be a circle from 300 to 400 miles in diameter.

An application for an experimental license to conduct the project will be filed soon with the Federal Communications Commission by the Purdue Research Foundation.

The Midwest Council on Airborne Television Instruction will inaugurate the project and assist it through the initial stages. Working with superintendents, school boards and principals, it will organize the cooperative efforts among

schools to result in sustained support for the project and later determine the courses to be shown.

The midwestern educators believe the project is a major effort to break through
(Continued on Page 136)

Athletics Injure 7100 in Wisconsin

MADISON, WIS. — High school athletic programs resulted in injuries to 7100 students in Wisconsin in 1958-59, the state medical society has reported.

Football accounted for 3984 of the injuries, slightly more than 64 per cent of the total. Basketball accounted for 1184, wrestling 401, track 271, and baseball 194. The figures were based on insurance claims.

National Council on Schoolhouse Construction Considers Safety, Functional Planning and Its Own Destiny

KANSAS CITY, MO. — "Today, with so much depending on the wisdom of our leaders, education is responsible for the preservation of life itself," John L. Cameron told members of the National Council on Schoolhouse Construction, here October 6 to 9 for the 36th annual meeting.

The chief of the school housing section of the U.S. Office of Education added: "It is doubtful that any group has more influence than this council on the two most important issues in contemporary American education: (1) getting the most

for the school dollar, and (2) improving the quality of education."

If a school bus or an item of instructional equipment proves unsatisfactory, it can soon be replaced, Dr. Cameron observed. Even the influence of a poor teacher, to a large extent, can be overcome within a few years. But if a school building is poorly designed functionally or located improperly, "the school children of that community have to live with our mistakes, and the educational opportunities to which they are entitled are denied them."

(Cont. on p. 132)

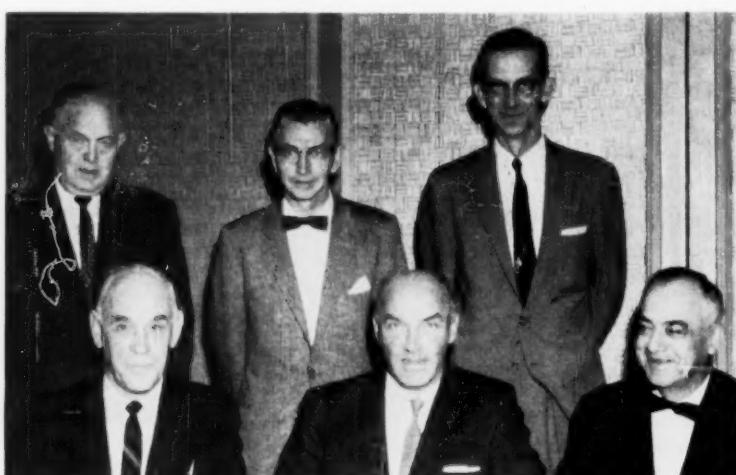
A.S.C.D. Conference Will Change Its Appearance

WASHINGTON, D.C. — "Social and cultural influences on education" has been chosen as the theme of the 15th annual conference of the Association for Supervision and Curriculum Development of the N.E.A. The conference will be held here March 6 to 10, 1960, with the Shoreham Hotel as headquarters and the Sheraton-Park Hotel as associate headquarters.

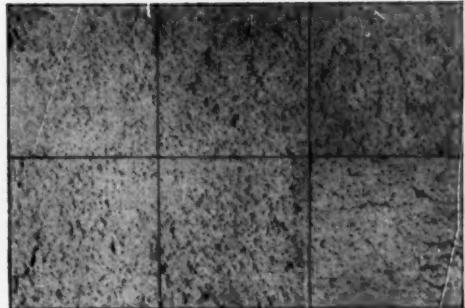
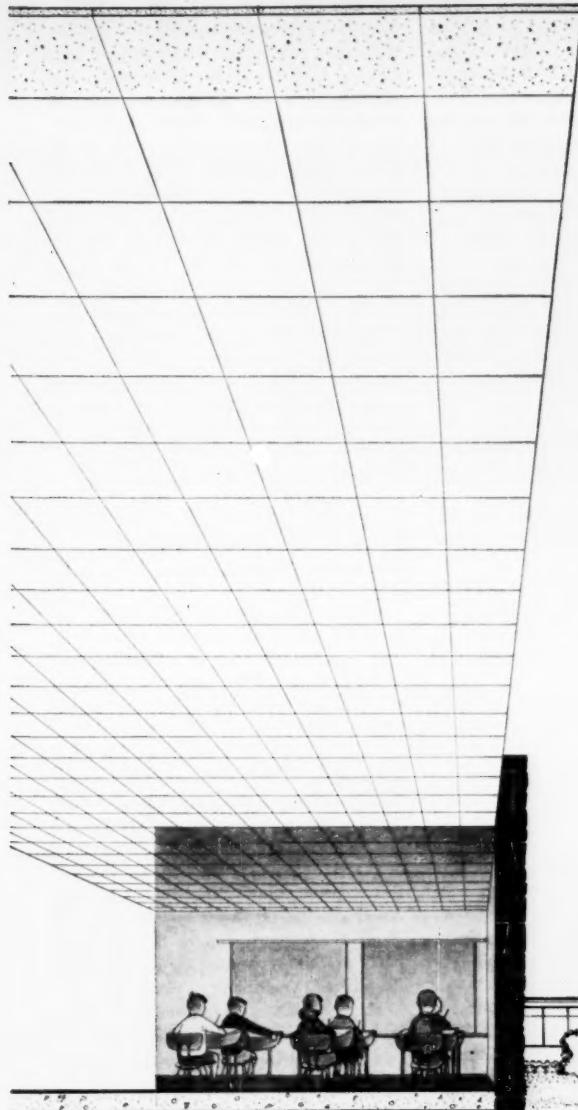
A new feature will be the Sunday arts-cultural evening with the Music Educators National Conference, the National Art Education Association, and U.S.O.E. specialists in these areas cooperating.

Another innovation for A.S.C.D. is the scheduling of area meetings. Six concurrent meetings will be held on the afternoon of the first full day, and these will provide a framework for discussion groups devoted to current and urgent curriculum problems.

Job-alike groups are a third new idea. On two half days members will meet with persons who have the same kind of jobs.



NEW EXECUTIVE COMMITTEE: (standing) James L. Taylor and James L. Reid, holdover committeemen, and W. D. McClurkin, secretary-treasurer; (seated) George D. Englehart, retiring president and ex-officio member; Lloyd L. Waite, president, and N. L. George, retiring committeeman. Not shown are Arnold C. Tjomsland, vice president, and Merle A. Stoneman, who succeeded Dr. George.



These efficient, noncombustible Permacoustic sound-control tiles soak up as much as 80% of the sound that strikes them.

Get rid of disturbing noise

A ceiling of Johns-Manville Permacoustic® quells distracting din—
it's noncombustible and it's architecturally attractive

IN SCHOOLS, unnecessary noise can ruin concentration. So, it pays well to hush it to a minimum.

One of Johns-Manville's efficient materials that soak up sound waves is Permacoustic. It is made of spun mineral fibers which are compacted into a rigid

and enduring material of monolithic construction. During this process, attractive and useful fissures are formed. They provide narrow entry channels that soak up as much as 80% of the noise waves transmitted to a Permacoustic ceiling.

J-M Permacoustic not only silences un-

wanted sounds, it will also satisfy the most rigid fire-safety codes. It can be erected by cementing or by means of metal suspension systems.

For complete details, write to Johns-Manville, Box 158, New York 16, New York. In Canada, Port Credit, Ontario.

JOHNS-MANVILLE



Educators Are Told What Is Ideal School

SARANAC INN, N.Y. — "The differences between a school that is doing a fairly good job and one that is doing a really top-quality job are little differences which add up to a tremendous whole," said Alice L. Foley, elementary supervisor at Brighton, N.Y. She was addressing the 77th annual meeting of the Council of School Superintendents of the State of New York.

In what Miss Foley considers a "quality" school, a philosophy of education from kindergarten through Grade 12 would be worked out by a joint commit-

tee of elementary and high school teachers, administrators, boards and lay people.

"We cannot build the kind of educational program we want in America, if beginning with the graduate school, each area superimposes its demands on the area underneath," asserted Miss Foley.

Make-Believe Grammars Measure 'Ear for Language'

NEW YORK. — "Artificial languages" and "make-believe grammars" are measuring a person's "ear for language" even though he may have had no experience or training outside his native tongue.

Administrator Must Make Safety Education His Business, Say Experts at National Safety Council Convention

CHICAGO. — "Safety, like religion, is something that everyone favors," school administrators were told at the recent National Safety Congress, the annual convention of the National Safety Council.

E. Forrest Gaines, managing director of the Greater Baton Rouge Safety Council, Baton Rouge, La., defined his statement by saying that safety is a band wagon on which everyone wants to ride. Some of those who climb aboard are most sincere, while others have personal gain foremost in their minds, he added.

It is the administrator's responsibility to be acquainted with the policies established by his employer, the board of education, in governing the use of services and materials of outside agencies in the school's safety effort, declared Mr. Gaines.

"What leadership and aid can come from the state education department?" was the question discussed by Ivan Stehman, coordinator of highway safety education, Pennsylvania Department of Public Instruction, Harrisburg.

Functions of the state department of education, said Mr. Stehman, should include: (1) administration, or carrying out the mandates of the legislature; (2) leadership in carrying out a program of general safety and encouraging cooperation on the state and local levels; (3) consulting services and assistance in promoting teacher workshops or teacher inservice training for driver education; (4) cooperation with colleges and universities, voluntary organizations, and official agencies interested in safety and driver education; (5) research in safety education and assistance to schools in interpreting and applying their findings, and (6) means of continuously evaluating safety and driver education programs.

"Everybody wants safety education but keep your cotton-pickin' foot out of my door," concluded L. Vaughn Gayman, director of publicity for Loras College, Dubuque, Iowa, and news director of a Dubuque radio station. Everybody wants to be stopped before being hurt but

stopped by some mysterious outside agency with more sense than he has, asserted Mr. Gayman.

George P. Silverwood, director of safety for the public schools of Green Bay, Wis., spoke on collecting and classifying information on school accidents. Some of his points were:

1. Child accident statistics must be translated into easy reading, and concrete and specific countermeasures must be set forth as teaching suggestions, or be incorporated into the curriculum.

2. Low accident frequencies do not necessarily indicate the quality of the safety education program; they may simply reflect poor accident reporting.

3. It is necessary to carry on a continuous campaign among principals, teachers and students in order to achieve thorough reporting of accidents.

4. By and large, the best medium for collection of accident facts is the Standard Student Accident Reporting System. "While far from perfect, it is more practical and effective than any other yet devised," said Mr. Silverwood.

The big job today, declared Mr. Silverwood, is to determine which are the most important accident facts; if we are collecting information that has relatively little significance, it could be deleted from the accounting program.

Much remains to be done to provide adequate facilities and devices for the fire safety of new building and additions, said Lonnie Gilliland, director of safety education for the public schools of Oklahoma City. This statement was based on the findings of a safety education activities committee as to such present practices as school fire exit drills, signaling devices, panic bars on exit doors, "recall" signals, and the school policy on smoking.

Existing trends and their implications for curriculum development and the role of the supervisor in American education were discussed by George W. Denemark, dean of the school of education at the University of Wisconsin at Milwaukee.

The new test, devised by Prof. John B. Carroll of Harvard University and Stanley M. Sapon, now professor of modern languages at Ohio State University, can measure what is apparently a special talent for languages. People who score high in the test are likely to do much better in languages than those who score low, according to its developers. They state that the test shows only a moderate degree of relationship with general intelligence.

The complete test has five parts, takes an hour, and is administered with a tape recorder. A "short form" uses only the last three parts, takes only a half hour, and does not require a tape recorder. Just released for use in high schools, colleges and foreign language schools, the test is already in use by several U.S. government agencies and military organizations.

Create Trust From Fund for School Fire Victims

CHICAGO. — The \$278,326 balance in the fund established for the victims of the Our Lady of the Angels school fire one year ago has been placed in trust. Medical bills of the children still being treated will be paid from this trust fund.

Contributions amounting to \$528,717 came from 11,000 firms and individuals in the United States and foreign countries. From them, payments of \$1000 have been made to each family that lost a child in the fire.

The trust, administered by the mayor's office, will be reviewed in 10 years, and if all needs pertaining to the fire have been met, the remaining money will go to the Chicago Community Trust.

Msgr. William McManus, Catholic archdiocesan superintendent of schools, told The Nation's Schools that a survey is being conducted of the ways in which Chicago's Catholic schools are making provision for the safety of their children.

American Education Backed by British Newspaper

MANCHESTER, ENGLAND. — Cries against the education system of the United States "have not been entirely justified," declared a recent editorial in the Manchester Guardian, a leading British newspaper.

"Political and administrative failures, not its underlying philosophy," are responsible for the shortcomings of American education, stated the Guardian.

The editorial further explained that "the main faults outstanding are lack of money and administrative confusion — both due, in the last analysis, to the federal Constitution itself. Education is the responsibility of the states, not the federal government — and the states are chronically impoverished."

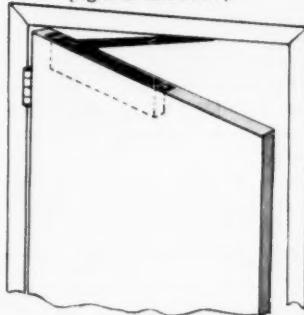
MULTI-CHECK®

FOR INTERIOR DOORS

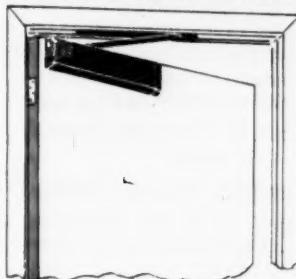


mounts any way you like...

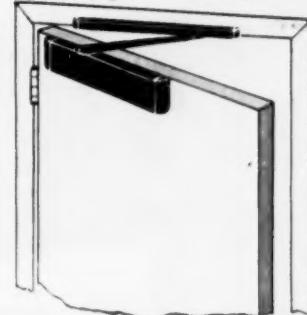
mortised in the door
(right or left hand)



push side—surface mounted
(right or left hand)
NO SPECIAL BRACKET NEEDED



pull side—surface mounted
(right or left hand)



non-handed closer meets every mounting need...

ONE-PIECE (non-protruding) ARM
hides away when door is closed.

HOLD-OPEN quickly adjustable to any one of 7
points.

FLOATING ROLLER in arm rides freely to adjust to door sag or im-
proper hanging.

TRAVELING SPINDLE
moves with arm to relieve
leverage stress on hinges
and door frame.

TWO CLOSING SPEEDS
independently adjustable.

write for complete details
and installation templates



THE OSCAR C. RIXSON COMPANY

9100 west belmont avenue • franklin park, illinois

CANADIAN PLANT: 43 racine rd. (rexdale P.O.) toronto, canada

Council Considers Safety, Functional Planning

(Continued From Page 128)

During the four days of meetings, council members did considerable soul searching as to the council's organizational destiny. Some favored continuation of its traditional role as a study group. Others emphasized repeatedly the "expanding role of the council" particularly with its entry into the postsecondary field, and urged broadening of its scope to include management, utilization and other areas of concern to school plant personnel. The matter of "setting up an office and a staff to transact business and to promote and implement research, using the unparalleled human resources of members," was broached.

The upshot of these various explorations was a mandate to the council president to appoint ad hoc committees to consider and report back at the 1960 meeting on the following matters:

1. Changing the council's name to make it less limiting and to reflect more nearly the broadening range of interest.
2. Restating organizational purposes and objectives.
3. Recasting present membership requirements. Candidates now must be devoting more than half their time to school planning.

4. Determining the proper relations between the council and regional associations of school plant personnel. The previous stand has been to encourage members to participate in these groups, with the latter setting up their own membership requirements and meeting their own purposes in their own way without involving the council.

Business Transacted

During the week members also:

1. Elected Lloyd L. Waite, Shreveport, La., president, and Arnold C. Tjomsland, Washington State Department of Education, vice president.
2. Accepted some 22 new members to offset a similar number of expirations, leaving council membership at approximately 300.

3. Put finishing touches on a 169 page mimeographed manual on postsecondary school plant planning, to be published early in 1960 under the tentative title of "Planning Facilities for Higher Education."

4. Received findings of research studies on school furniture and equipment and its rehabilitation, but withheld publication pending consultation with the Association of School Business Officials.

5. Took steps to revise the 1958 edition of "Guide for School Plant Planning" by 1963, and to prepare a handbook for liaison officers by next year's conference.

6. Obtained from members suggestions for helpful research studies in the school construction field.

7. Spent many hours in three study groups on elementary, secondary and postsecondary education, into which all registrants had been divided. Devoted one evening to discussion groups in three areas: planning, maintenance and operation programs; planning for use of audio-visual aids, and planning thermal comfort in school buildings.

8. Set aside one afternoon for school visits in Missouri and Kansas.

9. Reconfirmed Toronto as the 1960 convention city and designated Atlanta for 1961. Thereafter an effort is to be made to fix a date preceding or following that of the Association of School Business Officials, with the possibility of joint sessions on at least one day.

Caution Against Hysteria

Two other resolutions were adopted. The first restated the position of the council "concerning the acute need for both national and state support of public school building programs" and emphasized that "this partnership program should recognize that the control of the public education program must be retained at the state and local level."

The second resolution re-emphasized the planners' concern with the fire safety of school children and recalled that the national 1939 school fire exit code had been drafted by organization members. The body urged that "research findings, common sense, and logical action be utilized in solving these important (fire) problems," but cautioned against any hysteria in formulating local school building codes and other regulations which would hinder, rather than serve, the cause of education.

Among others on the rostrum at various sessions, in addition to committee chairmen and liaison officers, were these speakers:

Hubert Wheeler, Missouri commissioner of education, and Adel F. Throckmorton, Kansas state superintendent of public instruction, who brought words of greeting.

Study Fallout Protection

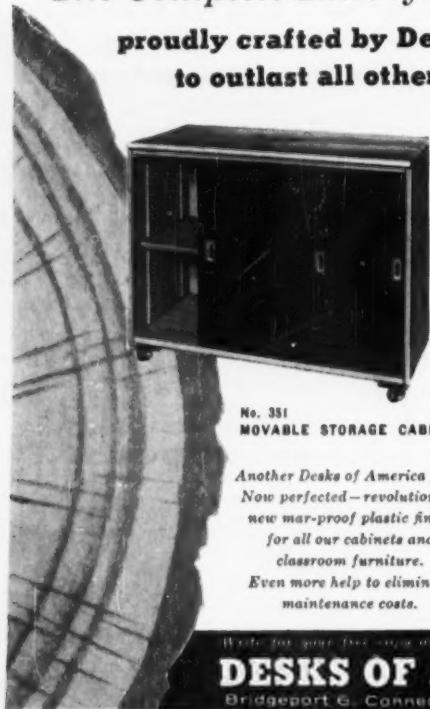
F. O. Starr, regional director, Office of Civil Defense, Battle Creek, Mich., who acquainted members with the relative dangers of nuclear blast and fallout. He urged them to make an immediate survey in their local school systems to identify the areas that would provide greatest protection not only from nuclear attack but also from tornadoes and other disaster threats, and to work out their own best survival plan.

(Cont. on p. 134)

for the finest schools in the world...

The Complete Line of School Furniture

**proudly crafted by Desks of America
to outlast all others**



No. 351
MOBILE STORAGE CABINET

Another Desks of America first!
Now perfected—revolutionary
new mar-proof plastic finish
for all our cabinets and
classroom furniture.
Even more help to eliminate
maintenance costs.

CLASSROOM CABINETS... Versatile, flexible and economical, both our Standard and Contemporary lines offer a wide choice of classroom cabinets, bookshelving, and teachers' cabinets for every room in your school.

BUSINESS EDUCATION FURNITURE... Full selection of adjustable typing desks; drophead, modular, electric desks; bookkeeping tables; posture seating.

CLASSROOM DESKS AND CHAIRS... Tablet arm chairs, desks, tables, classroom chairs for all age groups from kindergarten to high school.

Write for your free copy of our catalog today.
DESKS OF AMERICA Inc.
Bridgeport 6, Connecticut

the HILLYARD "MAINTAINEER" will help you plan Holiday Clean-up...

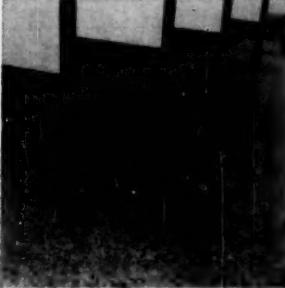
**Holiday breaks give you the chance to bring floors back
to top condition, after the first months of wear.**

THE HILLYARD "MAINTAINEER®"
will gladly help you prepare for most
effective use of this time, with:

- A plan, for appropriate treatment of each area, i.e., strip-in of traffic lanes rather than entire floor re-treatment.
- A schedule, to put each operation in the right sequence, with tools and materials ready when needed.
- Materials for longtime wear, appearance, and maintenance economies.
- Latest application methods, to streamline each job.



The worst weather and greatest punishment lie just ahead, for foyers, lobbies, corridors



Showers, locker rooms and toilets need not get dingy and neglected-looking



Cafeteria areas need special treatment. Ask about one-step cleaning and sanitizing of all surfaces

**CALL HIM NOW. (and ask him how to pre-condition
your gym floor just before dances) The Hillyard Maintaineer is your consultant on floor care.
"On Your Staff, Not Your Payroll"**



ST. JOSEPH, MO.
San Jose, Calif.
Passaic, N. J.

Branches and Warehouses in Principal Cities

NOW'S THE TIME TO MAIL THIS COUPON!

HILLYARD St. Joseph, Mo. Dept. E-4

Please have the Maintaineer in my area get in touch with me. No charge, no obligation for his help!

Name.....

Institution.....

Address.....

City..... State.....

(Continued From Page 132)

James A. Hazlett, superintendent of schools at Kansas City, Mo., who said that the planning of a school must reflect local tradition, policies and objectives and must be a blending of localism and educational idealism. He urged the school planners to make themselves sensitive to today's changing philosophy in education so they can "translate into mortar and stone a physical expression of the curriculum." Administrators, said he, should involve in school planning the teachers who will use the facilities as well as the specialists, but must step in when necessary to assure balance and perspective for the ultimate program.

W. M. Ostenberg, superintendent of schools at Salina, Kan., who observed that the federal government appears to be willing to pay for everything but the construction of schools and provides twice as much in funds for the processing of feed as for children. Somehow, he said, we must "get some arousal started," so that all concerned with education will do a better job of selling the most unique program in history, that of the public school, to our neighbors.

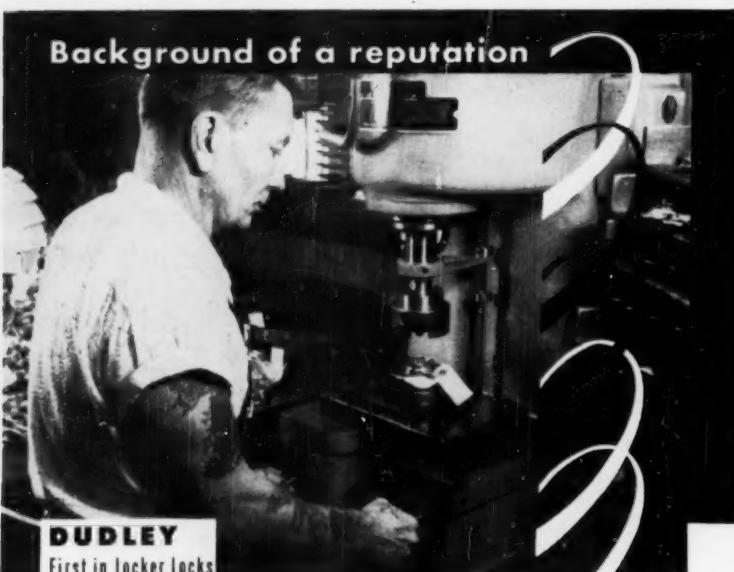
Thomas J. Higgins, director, division of maintenance and repair, Chicago public schools, who gave a report at Tuesday's luncheon meeting on the December 1958 fire at Our Lady of the Angels School.

Architect William W. Caudill, who addressed one of the discussion groups on the subject of air conditioning.

The newly elected president, Lloyd L. Waite, told The Nation's Schools that during the coming year the council will continue to concern itself with the curriculum as it relates to long-range school plant planning. He gave assurance that committees would give careful study to suggested changes in name, scope, objectives and membership requirements, as spelled out by the several resolutions. With the increasing complexity of building problems and changes in educational emphasis the council can't remain static, he said.



VICE PRESIDENT
Arnold C. Tjomsland is director of school plant facilities for the Washington State Board of Education.



DUDLEY
First in Locker Locks



RP-5
Combination Padlock
with Revolving
Knob Pointer

Solid brass case . . . 40-division dial marked in white on black enamel . . . self-locking—when hasp is pushed home tumblers turn, pointer spins away from last combination number.

Lifetime Seal

A "steel fist encased in velvet," this powerful midget press turns the edge of the case over the "works," to seal a Dudley Locker Lock for life. Too much pressure would bind the tumblers, too little would let them slip. This infallible machine, unaffected by late hours or bad disposition, does it *just right*—every time! And every Dudley Lock is shipped with exact protection and smooth assurance.

You can always depend on the protection given by Dudley Locks. Ask your Dudley representative. He will helpfully discuss your locker lock needs—with no obligation, of course.

DUDLEY
LOCK CORPORATION

Dept. 1210, Crystal Lake, Illinois

The standard of controlled locker protection since 1921

In addition to President Waite and Vice President Tjomsland, the new executive committee consists of the following: W. D. McClurkin, director of surveys and field services of George Peabody College for Teachers, Nashville, Tenn., secretary-treasurer, reelected for his 14th one-year term; George D. Englehart, retiring president, who automatically became ex-officio committeeman; Merle A. Stoneman, professor of school administration at the University of Nebraska, who succeeded N. L. George, Oklahoma City, and the two continuing committeemen, James L. Taylor, specialist for planning school buildings, U.S. Office of Education, and James L. Reid, supervisor of school plant, Maryland State Department of Education, Baltimore. — Leo E. Buehring.

Says Schools' 'Shortcomings' Handicap Students' Learning

ATLANTIC CITY. — Public school instruction is often outmoded and second-rate, stated Francis S. Chase, chairman of the education department of the University of Chicago, at the annual conference of the New Jersey School Superintendents here.

He asserted that the sciences being taught are not in line with current theory and that mass production technics have become so standardized that the waste of talent is becoming "intolerable."

Teaching talent is not being used effectively, nor is the highly creative teacher rewarded, criticized Dr. Chase. He believes that these failures, along with the shortage of good teachers, are handicapping learning.

Here now! To help you...

Every Change...Important

Every Advantage...Definite



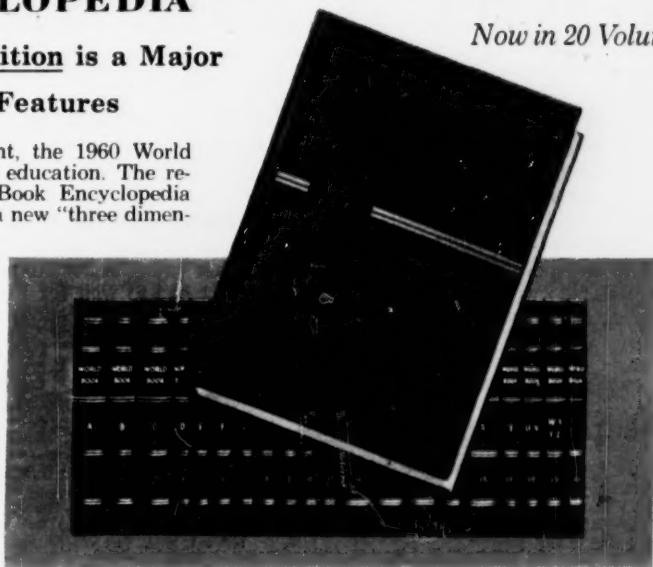
The 1960 WORLD BOOK ENCYCLOPEDIA

**This Greatly Enlarged New Edition is a Major
Revision With Many Exclusive Features**

More than an exciting editorial achievement, the 1960 World Book makes important new contributions to education. The revised and expanded twenty-volume World Book Encyclopedia offers tested visual aids such as Transvision, a new "three dimensional" map program, and thousands of new or revised articles. New illustrations are more interesting, more numerous than ever before. In fact, no other reference set has ever been more precisely organized and systematically revised to help educators and students.

The 1960 World Book Encyclopedia represents an investment of an additional \$2,800,000 in creative costs to make available to schools, libraries, and homes the most modern, accurate, and useful reference set. Write for complete information without obligation. Address: World Book Encyclopedia, Box 3565, Merchandise Mart Plaza, Chicago 54, Illinois.

Now in 20 Volumes



Smoke Is the Killer!

(Continued From Page 62)

tially offset by elimination of plans to install fuse-link doors and baffle vents, both of which were proved to be quite unsatisfactory.

California Fire Marshal Joseph Yockers reached another major decision based on test results. He recommended that the double-loaded center corridor method of construction be abandoned. As a safer alternative, he urged construction of schools with direct exits from each classroom in one-story buildings.

In multistory buildings, Mr. Yockers recommended external corridors with

stairways at all four corners. He contends such changes would entail no increase in building costs.

The National Fire Protective Association, 60 Batterymarch Street, Boston 10, is expected to distribute up to 10,000 copies of the test results to schools and fire departments throughout the world.

Fire officials in Los Angeles admit their pioneer approach to solving a critical national problem is only a beginning. These officials hope that what they have started will be extended by experimenters elsewhere so that school children all over the world need no longer fear the sound of a fire alarm.

When the Fat Hits the Fire.

Agreeing with a Canadian teachers college that fat teachers are not good teachers, the Ontario government in Toronto has upheld the college's decision to fire a 278 pound student teacher because he's too fat. The teachers education medical board denies that Jimmy Babinetz, 19, got the axe because of any pension plan. The youth's parents, it seems, charge they were told the decision was taken because it was feared the young giant would be a "liability to the teachers' pension fund." And F. S. Rivers, deputy minister of education, says the Ontario education department is in a position to overrule the decision, but that it will not do so.

Perfect 36. A beauteous blonde third grade teacher has been chosen "Miss White Plains" by the New York suburb's chamber of commerce. Dorothy Miller won out over representatives of retail stores, banks and other firms to represent the city at civic functions.

One for the Books! A \$250,000 school building in Huron, Ind., has burned to the ground because help was refused by a volunteer fire department in a village 10 miles away, according to a news story in the Chicago Tribune. Hugh Mefford, township trustee and school officer, says: "We didn't call anybody else. (The neighboring fire department had said it could not and would not go outside its village limits to fight a fire.) We all got excited and stood around and watched the school burn. We felt nobody would come." Fire officials in the county seat of Bedford say they would have come had they known of the fire.

Beauty
FIRE SAFETY
LOW UPKEEP
all for
\$7.30
A SQUARE FOOT



Thirteen 9-ply radial arches span 72', spaced 10' o.c., center height 24'. Twenty-eight classroom beams of varying lengths. Rilco Deck used throughout.

Talk about low-cost construction, this striking school was built for only \$7.30 a square foot.

One reason for big saving is Rilco laminated wood arches and beams used extensively throughout the school. In the gym, handsome Rilco arches allow plenty of room. No cold bare "construction" look here. Rilco arches add a warm friendly feeling, mellow with age, require little maintenance. Classrooms and lunchroom utilize Rilco beams. Rilco deck also kept costs down by replacing lath, plaster, joists, bridging. Combines roof and interior ceiling in one application.

Rilco components are safe, strong, sturdy. Above all, Rilco means fire safety. Laminated wood won't suddenly buckle under intense heat, allows time for evacuation.

One thing more — fast erection. The contractor says: "A very important item to us is delivery. We have never yet had to wait for Rilco during construction." For more information write:



Kiowa elementary school, Kiowa, Colorado
Architect: Robert W. Dilzen, Boulder, Colorado

RILCO
works wonders with wood
RILCO LAMINATED PRODUCTS, INC.

W819 1st National Bank Building
Saint Paul 1, Minnesota

District offices: Tacoma, Wash., Newark, N. J., Fort Wayne, Ind.

Flying Television

(Continued From Page 128)

technical and financial barriers to improve the quality of education. Council Chairman Samuel M. Brownell, superintendent of schools in Detroit, states that the council "was formed because of the challenge facing American education to provide sufficient quantity of educational opportunities for a fast-growing population along with improved quality of instruction — and to provide both quantity and quality within feasible costs."

The project is not a facility to replace the classroom teacher, but to allow her more time to devote to individual needs of students, it was made clear. Specifically, the experiment seeks to give students educational experiences that might be too costly otherwise.

Financed by a Ford Foundation appropriation amounting to \$4.5 million in grants for various phases, the project will be supplemented by grants from corporations that have given assurances of support. Other industries will provide equipment or services.



ARTS AND CRAFTS

CLOTHING

a complete custom school installation by *St. Charles*



George W. Norris Junior High School,
Omaha, Nebraska,
Leo A. Daly Co., Architects

Nebraska Custom Kitchen, Omaha,
St. Charles Representative



FOODS

Maximum use of space, *complete* flexibility and built-in St. Charles *quality* — for heavy use plus long range economy — are the main reasons St. Charles Custom School Storage furniture is the ever-growing preference of teachers, administrators and school architects for *all* classroom needs.

Each St. Charles installation is custom built to meet each individual teaching situation. The result? Food, clothing, arts and crafts and classroom storage furniture *especially* built to exactly fit your needs and available space.

Send for Catalog: Complete.
"St. Charles Custom School Storage Furniture." Available at your request, on your letterhead.

St. Charles Manufacturing Company
Dept. NSS-12, St. Charles, Illinois



St. Charles
CUSTOM SCHOOL
STORAGE FURNITURE

School Storage Furniture for Food Labs, Clothing Labs, Arts and Crafts, and Elementary Classrooms

Shape Up or Ship Out. Chicago's Catholic school seventh and eighth graders (there are 60,000 of them) are facing more homework and tougher grading this year. The new push for at least one hour of homework each night is part of a plan to toughen up elementary children for the "realities of high school life." It will, in the words of the Very Rev. Msgr. William E. McManus, superintendent of archdiocesan schools, "help break the pupils from the spoon feeding type of education of the lower grades to the more self-reliant type they face in high school." He has introduced a new report card that rates upper grade pupils on achievement alone rather than on a correlation be-

tween ability and achievement as used in the lower grades.

Honesty Best Policy? Forty per cent of 423 undergraduates at Western Reserve University in Cleveland admit that they cheat in classwork. The 423 participated in a recent student sponsored poll. Of those polled, some 183 admit to some degree of dishonesty, and 103 admit to "wandering eyes" during examinations. Some 71 respondents admit plagiarism. Dean Russell Griffin says the amount of cheating revealed does not strike him as high. "Only 30 per cent of the student body of 1500 participated in the poll," he notes.

Coming Events

DECEMBER

1-3. California Association of School Administrators, annual convention, San Francisco.

26-31. National Science Teachers Association, annual joint meeting with Science Teaching Societies of American Association for the Advancement of Science, Chicago.

28-30. Speech Association of America, national convention, Washington, D.C.

JANUARY

30. National Council of Teachers of Mathematics, joint meeting with Mathematical Association of America, Chicago.

FEBRUARY

11-13. American Association of Colleges for Teacher Education, 12th annual meeting, Chicago.

11-13. United Business Education Association, national meeting, Chicago.

13-17. American Association of School Administrators, Atlantic City.

15-17. American Educational Research Association, N.E.A., Atlantic City.

27-Mar. 2. National Association of Secondary-School Principals, N.E.A., 44th annual convention, Portland, Ore.

MARCH

6-9. Association for Higher Education, 15th national conference, Chicago.

6-10. Association for Supervision and Curriculum Development, N.E.A., 15th annual meeting, Washington, D.C.

26-30. Department of Elementary School Principals, N.E.A., annual meeting, St. Louis.

27-April 2. 1960 White House Conference on Children and Youth, Washington, D.C.

APRIL

3-9. National Library Week.

17-22. Association for Childhood Education International, annual study conference, Cleveland.

20-23. National Council of Teachers of Mathematics, annual meeting, Buffalo.

24-27. National School Boards Association, annual meeting, Chicago.

JUNE

12. United Business Education Association, annual meeting, Los Angeles.

19-23. National Association of Student Councils, National Association of Secondary School Principals, annual conference, Janesville, Wis.

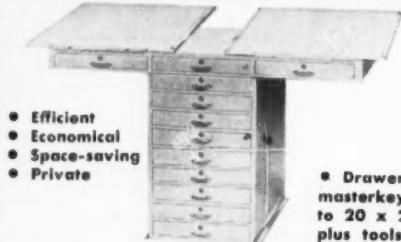
26-July 1. National Education Association, annual meeting, Los Angeles.

29. National Council of Teachers of Mathematics, N.E.A., joint meeting, Los Angeles.

The NATION'S SCHOOLS

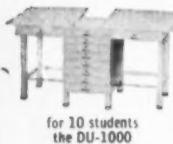
from STACOR ... new functional units for your school

THE FLEX-MASTER LIFETIME QUALITY INDIVIDUALIZED DRAWING UNIT NL-1200



provides open working surface and horizontal board storage facilities for
12 students

• Drawers have individual locks, masterkeyed . . . hold boards up to 20 x 26 in horizontal position plus tools, other material.



for 10 students
the DU-1000



for 9 students
the DU-900



for 7 students the DU-700



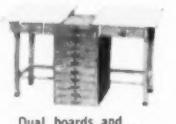
for 6 students
the DU-600



8-drawer cabinet unit
the DU-800



5-drawer cabinet unit
the DU-500



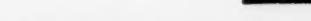
Dual boards and drawer space for 12
the DU-1200

Write TODAY for complete NEW catalog. Dealer inquiries invited.

Manufacturers of Lifetime Quality Drafting Equipment for Schools and Industry

STACOR EQUIPMENT CO.

311 Emmet Street, Newark 5, New Jersey • Bigelow 2-6600



There's no short cut...

TO DEPENDABLE LOCKER SECURITY

Positive locker protection is a matter of sound engineering and quality components in the locks you buy. There are no short cuts . . . no substitutes! That's why schools everywhere praise the dependable, long-term performance of National Lock combination locks. (Check the quality features listed below.) Simplified re-setting of combinations and a complete system of locker control make National Lock combination locks mighty convenient to use. Investigate the other advantages, too.

Dependability Spells Value . . . with NATIONAL LOCK School Locks

SHACKLE LOCKS

- Wrought metal working parts
- Steel parts are electro-plated
- Chromium plated shackle
- Stainless steel outer case (on 68-264 only)
- Self-locking
- 3-number dialing
- Available with or without masterkey feature

BUILT-IN LOCKS

- Wrought metal working parts
- Steel parts are electro-plated
- Zinc-plated bolt and box
- 3-number dialing
- Baked enamel dial
- Fit all standard lockers
- Combinations easily changed
- Available with or without masterkey feature

Master charts for lock records, complete with leatherette binder, are supplied FREE with quantity lock purchases. Write on your letterhead for FREE sample lock.

NATIONAL LOCK COMPANY
Lock Division • Rockford, Illinois



About People

Changes in Superintendencies

NORTHEAST

Norman W. Kratz, Council Rock Joint Schools, Newtown, Pa., to Norristown, Pa.

Alexander A. Mackimmie Jr., acting assistant superintendent, Hartford, Conn., to assistant superintendent there.

Arnold B. Copping, Rhinebeck, N.Y., to Herkimer, N.Y., succeeding **Byron Greenfield**, who goes to Lake Placid, N.Y.

George L. Osterwise, assistant superintendent, Montgomery County, Rockville, Md., to superintendent, Ballston Spa, N.Y.

John A. Chiavaro, superintendent of transportation and attendance, Newfane, N.Y., to director of secondary education there. He succeeds **George J. Bligh**, who becomes superintendent, Newfane, effective February 1960. Mr. Bligh succeeds **Clifford H. Bentley**, who will retire.

Lawrence J. Fitzpatrick, high school teacher, Somerville, Mass., to superintendent, Clinton, Mass.

Chester B. Parker, Union No. 6, Buxton, Me., to Union No. 18, Bridgton,

Me., succeeding **Carl E. Bowers**, who goes to Union No. 77, Belfast, Me.

Rudolph Merick, Shannock Valley Union School District, Kittanning, Pa., to Jeannette, Pa., succeeding **James Bennett**, who goes to Hempfield Area Joint School District, Greensburg, Pa.

MIDWEST

Paul H. Emerich, Fremont, Mich., to Ypsilanti, Mich. With 19 years' experience as a school administrator, he has taught in the graduate field of school administration at the University of Michigan and Central Michigan University. Dr. Emerich is a past president of the Michigan Association of School Administrators.

Ferris N. Crawford, continuing as chief of higher education and certification, Department of Public Instruction, Mich., has been appointed assistant superintendent of public instruction in charge of general education.

Konrad Wittmyre, Felton, Minn., to Russell, Minn., succeeding **Michael J. Stolee**, who goes to Clarkfield, Minn. Mr. Stolee succeeds **H. A. Hagg**, who retired after 38 years as superintendent there.

John Prasch, high school principal, Bell Flower, Calif., to superintendent, Racine, Wis. He had served the Racine school system previously, beginning in 1948, as head coach of Washington Park High School. In 1951 he became principal of the school and held that position until going to California in 1956.

Lester E. Angene, acting superintendent, Euclid, Ohio, to superintendent there.

Harry Salisbury, assistant superintendent, Maple Heights, Ohio, to superintendent there.

Richard M. Speas, Otoe, Iowa, to Lee County, Fort Madison, Iowa, succeeding **Charles L. Rupert**.

SOUTH

Jesse M. Randel Jr., high school principal, Beaufort, S.C., to superintendent, District No. 1, Beaufort.

Charles D. Munson, junior high school principal, Beckley, W. Va., and assistant superintendent, Raleigh County, Beckley, to superintendent, Upshur County, Buck-



CRAIG HILL ELEMENTARY SCHOOL Architects: C. Storrs Barrows & Associates



In these days when administrators and school boards are seeking means of improving sanitation and simultaneously reducing maintenance costs, the case of Greece, New York is significant.

Installed at the West Ridge school, a Spencer Vacuslot system demonstrated its efficiency and economy so effectively that similar systems have been specified into *three more* schools.

For routine maintenance, large dry mops are used to push dirt and litter to the Vacuslot, where powerful vacuum whisks it away through the piped system. Dry mops are then vacuum cleaned simply by passing back and forth across the Vacuslot.

The versatile system is also used for conventional vacuum cleaning, eraser cleaning, water pick-up (in conjunction with a portable wet separator) and for cleaning boiler tubes.

REQUEST BULLETIN NO. 153C

ALSO
MANUFACTURERS
OF A COMPLETE
LINE OF
PORTABLE VACUUM
CLEANERS.



The **SPENCER**
TURBINE COMPANY
HARTFORD 6, CONNECTICUT

SPECIFICATIONS

"Custom-Bilt by Southern" Quality

SPECIFICATIONS

"Custom-Bilt by Southern" Quality

SPECIFICATIONS

"Custom-Bilt by Southern" Quality



Guarantees

YOU GET The Best

Quality is always the guarantee that you're getting the best. Specify "Custom-Bilt by Southern" for your food serving equipment and be guaranteed the very best in craftsmanship, materials, fabrication, installation and maintenance.

Let our staff of experts help you with your food service planning. Consult your "Custom-Bilt by Southern" Distributor or write Southern Equipment Co.



"CUSTOM-BILT BY SOUTHERN" DISTRIBUTORS

ALABAMA, BIRMINGHAM—Vulcan Equip. & Supply Co.; **MOBILE**—Mobile Fixture Co. **ARKANSAS, LITTLE ROCK**—Krebs Bros. Supply Co. **FLORIDA, DAYTONA BEACH**—Ward Morgan Co.; **JACKSONVILLE**—W. H. Morgan Co.; **MIAMI**—J. Conkle, Inc.; **ORLANDO**—Turner-Haack Co.; **ST. PETERSBURG**—Staff Hotel Supply Co.; **TAMPA**—Food Service Equip. Co., Inc. **GEORGIA, ATLANTA**—Whitlock Dobbs, Inc. **ILLINOIS, PEORIA**—Hertzel's Equip. Co. **INDIANA, EVANSVILLE**—Weber Equip. Co.; **INDIANAPOLIS, MARION**—National China & Equip. Corp. **IOWA, DES MOINES**—Bolton & Hay. **KENTUCKY, LEXINGTON**—Heilbron-Matthews Co. **LOUISIANA, NEW ORLEANS**—J. S. Waterman Co., Inc. **MARYLAND, BALTIMORE**—The John Hoos Co. **MASSACHUSETTS, BOSTON**—Thompson-Winchester Co., Inc. **MICHIGAN, BAY CITY**—Kirchman Bros. Co.; **DETROIT**—A. J. Marshall Co.; **GRAND RAPIDS**—Post Fixture Co. **MINNESOTA, MINNEAPOLIS**—Aslesen Co.; **ST. PAUL**—Joesting & Schilling Co. **MISSOURI, KANSAS CITY**—Greenwood's Inc.; **ST. LOUIS**—Southern Equipment Co. **NEBRASKA, OMAHA**—Buller Fixture Co. **NORTH CAROLINA, ASHEVILLE**—Asheville Showcase & Fixture Co.; **CHARLOTTE**—Hood-Gardner Hotel Supply Corp. **NORTH DAKOTA, FARGO**—Fargo Food & Equip. Co. **OHIO, CINCINNATI**—H. Lauber & Co.; **CLEVELAND**—S. S. Kemp Co.; **COLUMBUS**—General Hotel Supply; **TOLEDO**—Rowland Equip. Co.; **YOUNGSTOWN**—W. C. Zabel Co. **OKLAHOMA, TULSA**—Goodner Van Co. **PENNSYLVANIA, ERIE**—A. F. Schultz Co.; **PITTSBURGH**—Flynn Sales Corp. **SOUTH CAROLINA, GREENVILLE**—Food Equipment Co. **TENNESSEE, CHATTANOOGA**—Mountain City Stove Co.; **KNOXVILLE**—Scruggs, Inc.; **MEMPHIS**—House-Bond Co.; **NASHVILLE**—McKay Cameron Co. **TEXAS, CORPUS CHRISTI**—Southwestern Hotel Supply, Inc.; **SAN ANTONIO**—Southwestern Hotel Supply, Inc. **UTAH, SALT LAKE CITY**—Restaurant & Store Equipment Co. **VIRGINIA, RICHMOND**—Ezekiel & Weiman Co. **WEST VIRGINIA, CLARKSBURG**—Parson-Souders Co. **WISCONSIN, MILWAUKEE**—S. J. Casper Co.

EASTERN DIVISION OFFICE—125 Broad St., Elizabeth, N. J.

SOUTHERN®
EQUIPMENT COMPANY

4536 GUSTINE
ST. LOUIS 16, MO.

hannon, W. Va. He had been with the Raleigh County school system for almost 30 years.

Bryan T. Taylor, high school principal, Odem, Tex., to superintendent, San Diego, Tex.

WESTERN

William G. Stevenson, elementary school principal, Lake Forest Park School, Seattle, to assistant superintendent, Shoreline School District, Seattle, effective January 1. He succeeds **Myron Ernst**, who will become superintendent, Bellevue, Wash., also effective January 1.

Jay Blaha, assistant superintendent in charge of personnel and curriculum,

Citrus Union High School and Junior College District, Azusa, Calif., becomes administrative assistant, Los Angeles County, Los Angeles.

Melvin Zinser, principal, Washington High School, Phoenix, Ariz., to superintendent, Glendale Union High School District, Glendale, Ariz.

Mary Lisle, elementary school teacher, Akron, Colo., to superintendent, Washington County, Akron.

Other Appointments . . .

Alton W. Cowan, superintendent, Fowler, Mich., and **James F. McClure**, part-time instructor, Lansing Community College, Lansing, Mich., have been

appointed to the staff of the division of administrative services, department of public instruction, Lansing. Mr. Cowan was named consultant, transportation and school district organization, and Mr. McClure was named consultant, school bond loan.

They succeed **Burton Thorn** and **Mills Wilbur**, who became assistant superintendents at Saginaw, Mich.

Richard N. Smith, superintendent, Webb, Iowa, will serve as regional consultant and supervisor for science departments, department of public instruction, Des Moines, Iowa.

Elbert W. Van Aken, superintendent, L'Anse Creuse schools, Mount Clemens, Mich., has been appointed assistant director, bureau of appointments and occupational information, University of Michigan, Ann Arbor.

Thomas J. Lasley, superintendent, Monroeville, Ohio, has accepted the position of business manager, Norwalk, Ohio.

Clyde McDaniel, superintendent, O'Fallon, Ill., has accepted the position of business manager, Rockford College, Rockford, Ill.

Retirements . . .

Firman S. McCormick, assistant superintendent, junior and senior high schools, Cleveland. He had held the post since 1954.

William Slade Jr., superintendent for 15 years at Shaker Heights, Ohio. He had spent 42 years in the education field. His retirement is effective September, 1960.

Harry D. Anderson, superintendent of Maine Township high school district Park Ridge, Ill. He has been an administrator of community and secondary schools in Illinois for 32 years.

Died . . .

Abraham Ehrenfeld, 69, retired assistant superintendent of Districts 19 and 20 of the Bronx, New York City. He had served the public schools of Manhattan as teacher, assistant principal, and principal. From 1927 to 1940 he was an instructor in the school of education, City College.

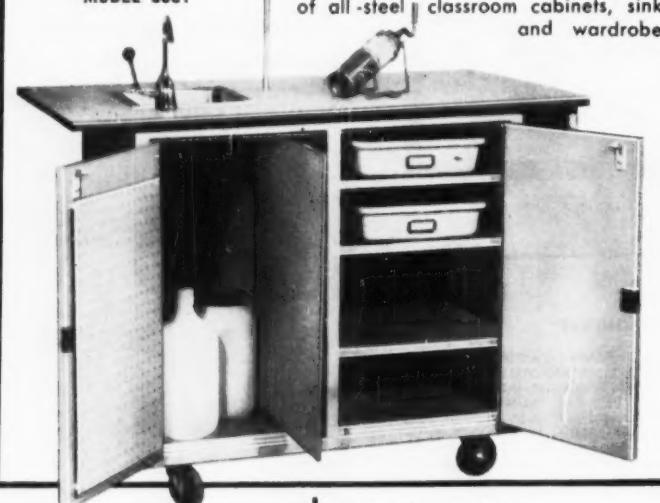
William C. Frantz, 70, retired superintendent, Venango County, Franklin, Pa. He had been a one-room elementary school teacher, high school principal, and assistant county superintendent during his 45 years in the field of education.

Wilson Hawkins, 85, retired superintendent at Canton, Ohio. He had been president of the Ohio Education Association and in 1928 received a medal from the N.E.A. for his work in the field of education, as well as a life membership in that organization.

Foy E. DeHaven, 56, superintendent at Radford, Va., since 1942.

ELEMENTARY Science Demonstrations IN ANY ROOM! ON ANY BUDGET!

Grade-Aid
Corporation's
new
ALL-STEEL
JUNIOR MODEL
PORTABLE
SCIENCE TABLE
MODEL 8501



NS-12

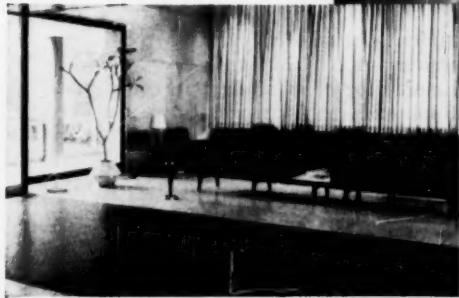
GRADE-AID CORPORATION
46 Bridge Street, Nashua, New Hampshire
□ Please send me complete GRADE-AID catalogs.
□ Please send me the name of nearest representative.
Name _____
Title _____
Address _____
City _____ State _____

GRADE-AID

Corporation
46 Bridge Street, Nashua, N. H.

MAIL COUPON NOW FOR COMPLETE SPECIFICATIONS AND INFORMATION

McDONNELL AIRCRAFT—St. Louis
Makers of the world's fastest
all weather Jet fighter plane
... and the space capsule
"Mercury" that will carry
the first man into orbit
around the earth.



McDONNELL *Aircraft Corporation*

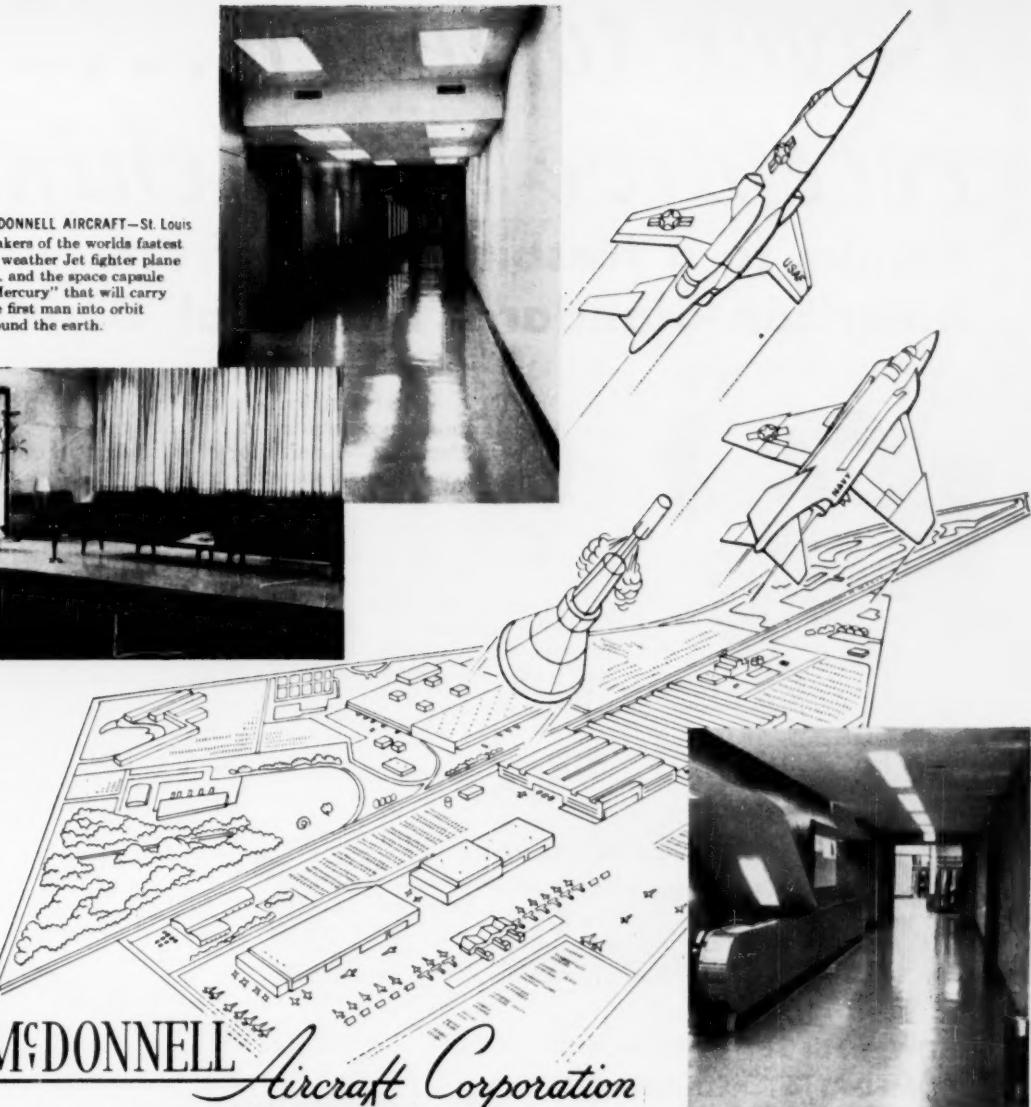
STANDARDIZES ON **VESTAL'S**
NEW **STYLE** FLOOR FINISH FOR THEIR FLOORS...

40,000 shoes every day punish the floors at McDONNELL unmercifully. To stand up under such rugged punishment, a floor finish must be exceptional. Such a finish is **STYLE**. **STYLE** keeps its initial appearance after hard use, provides safe walking and is easy to maintain under all conditions—gives maximum scuffing and walking resistance. And, **STYLE**'s super tough finish enables McDONNELL to reduce buffing operations, thereby saving labor, material and equipment.

Vestal's new **STYLE** floor finish is all synthetic. New hard plastic Polymers make it especially tough. **STYLE**'s beautiful, fresh-coated appearance lasts much longer . . . means less frequent re-coating . . . better appearance between applications . . . and most important—savings in labor costs.

Why not discover **STYLE**'s appearance and economy in your floor maintenance program. Mail the coupon at right for your "proof" demonstration.

VESTAL INCORPORATED • SANITATION-MAINTENANCE DIVISION • 4963 MANCHESTER • ST. LOUIS 10, MO. • JERSEY CITY, N. J. • MODESTO, CALIFORNIA



STYLE is the first and
only product with the
VERI-FIRE tracer for
built-in scientific floor
maintenance control.

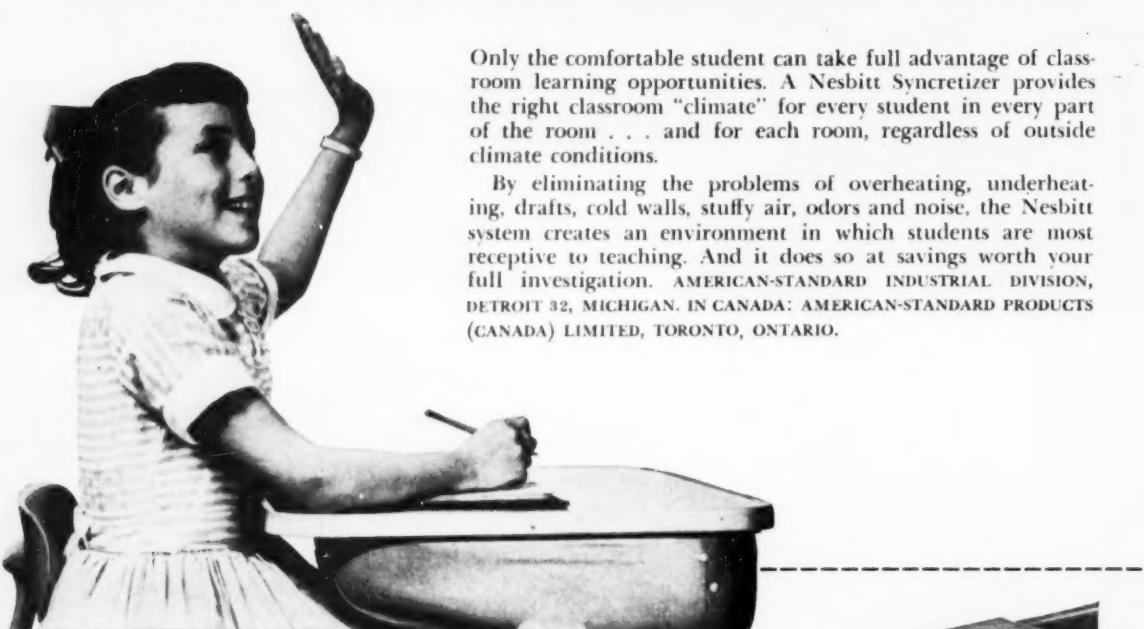
VESTAL INCORPORATED

4963 Manchester Ave., St. Louis 10, Mo.

Gentlemen: I'd like a free "proof" demonstration
of your new **STYLE** floor finish.
 Please send literature.

name	title
school	
address	
city	zone state

Eager to learn... receptive to teaching thanks to a Nesbitt system from American-Standard Industrial Division*



Only the comfortable student can take full advantage of classroom learning opportunities. A Nesbitt Syncretizer provides the right classroom "climate" for every student in every part of the room . . . and for each room, regardless of outside climate conditions.

By eliminating the problems of overheating, underheating, drafts, cold walls, stuffy air, odors and noise, the Nesbitt system creates an environment in which students are most receptive to teaching. And it does so at savings worth your full investigation. AMERICAN-STANDARD INDUSTRIAL DIVISION, DETROIT 32, MICHIGAN. IN CANADA: AMERICAN-STANDARD PRODUCTS (CANADA) LIMITED, TORONTO, ONTARIO.

HOW YOU GET CLASSROOM COMFORT AT REDUCED COST!

A Nesbitt Syncretizer in each classroom provides heating, ventilating and natural cooling. Wind-o-line Radiation solves the dual problem of cold walls and window downdrafts. Combined, they provide optimum comfort for every student . . . at savings of 20% or more on construction, installation and equipment costs.

This Nesbitt system provides the required heat (in addition to ventilation and natural cooling) with only one-third as much hot water as conventional systems. This permits the use of smaller, less expensive pipes and pumps. Factory installed crossover tubing, expansion loops and balancing valves eliminate expensive jobsite labor.



Wind-o-line Radiation is the supply and return piping for entire classroom wings, eliminates costly pipe trenches, mains, runouts and insulation.

Total savings make it possible for every school to take advantage of this finest heating and ventilating system money can buy.

*AMERICAN-STANDARD and Standard® are trademarks of American Radiator & Standard Sanitary Corporation.



AMERICAN-STANDARD INDUSTRIAL DIVISION

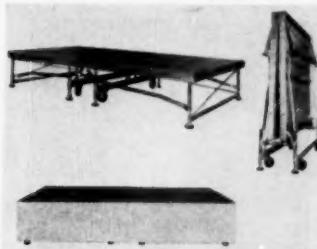
AMERICAN BLOWER PRODUCTS • ROSS PRODUCTS • KEWANEE PRODUCTS

Edited by BESSIE COVERT

TO HELP YOU get more information quickly on the new products described in this section, we have provided the convenient Readers Service Form on page 161. Check the numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. The NATION'S SCHOOLS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Portable Stages and Chair Stands Built to Grandstand Safety

Offered in modular sections, the new and complete line of Sico portable stages



and chair stands is built to public grandstand safety codes. All units are custom designed for flexibility and are interchangeable. They are constructed for locking together to produce platforms of various sizes and shapes to meet institutional needs. Designed to fold for compact storage, the new mobile staging incorporates a unitized steel framework coupled with a folding design that conserves space and labor. **Sico Mfg. Co., Inc., 5215 Eden Ave. S., Minneapolis 24, Minn.**

For more details circle 448 on mailing card.

Integral Hinge Brackets Strengthen Toilet Compartments

The strength of the new Sanymetal Integral Hinge Brackets for toilet compartments is demonstrated in the accompanying illustration. Bracket and hinge are also durable in use, assuring minimum maintenance with maximum resistance to abuse. They are made of heat-treated, high tensile cast aluminum alloys, and laboratory tests for opening and closing show no evidences of wear. The new brackets are installed at the factory on toilet compartment pilasters and permit quicker installation of doors with improved appear-



ance. The new brackets have no external bolts which show, do not interrupt the flat surface of the pilasters, and are finished to match. **Sanymetal Products Co., Inc., 1705 Urbana Rd., Cleveland 12, Ohio.**

For more details circle 449 on mailing card.

WHAT'S NEW for Schools

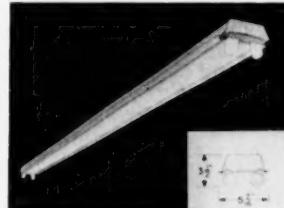
Institutional Cleanser Has Chlorine Bleach

Ajax Cleanser with Instant Chlorine Bleach is now available for institutional use. The new cleaning product is designed to remove stains quickly and the smooth texture makes it rinse away with no gritty residue. The "built-in" chlorine bleach eliminates the need for an extra bleaching product and disinfects as it cleans. **Colgate-Palmolive Co., Associated Products Dept., 300 Park Ave., New York 22.**

For more details circle 450 on mailing card.

Lite-Way Strip Units for Economical Lighting

Quality and low price are features of the new Lite-Way two-lamp Strip Unit lighting fixtures introduced by Day-Brite. Available from four-foot Rapid-Start, eight-foot tandem Rapid-Start and eight-foot slimline lamps, the fixture can be transformed into a finished, shielded unit by the addition of Day-Brite Fairview enclosures. Designed for surface or suspension mounting, Lite-Way has four or eight-foot rigidized chassis,



CBM ballast and is fused to give safe overload protection. **Day-Brite Lighting, Inc., 6260 N. Broadway, St. Louis 15, Mo.**

For more details circle 451 on mailing card.

Ease of Installation With Improved Bolta-Wall

No special tools are needed to apply the improved vinyl Bolta-Wall tile to any surface generally suited for wallpaper, including ceilings. A special non-staining adhesive applied to the wall provides a virtually unbreakable bond. Bolta-Wall is easily cleaned with a damp rag, its colors will not fade and it is available in a wide range of patterns. **The General Tire & Rubber Co., 1708 Englewood Ave., Akron 9, Ohio.**

For more details circle 452 on mailing card.

File and Magazine Unit in Kitchen Maid Home Ec Equipment

The quality wood line of Kitchen Maid cabinets is now available for school installation in home making departments. Ruggedly built at every point of stress for school use, the new line retains its beauty of line and the attractive texture of the wood paneling. The File and Magazine unit illustrated contains open shelf and drawer

storage space with areas for posters or work display. Drawers are quiet, smooth-sliding, durable and free of maintenance problems. Shadow-Line styling for modern appear-



ance is supplemented with a wide selection of wood finishes or enamel colors. **The Kitchen Maid Corp., Andrews, Ind.**

For more details circle 453 on mailing card.

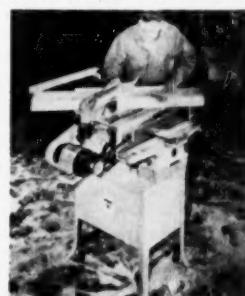
Johnson's Shine-Up Spray Cleans and Waxes

Woodwork, walls, fixtures, metal and wood furniture and other materials can be quickly and easily cleaned and waxed with the new Johnson's Shine-up Spray. Supplied in an institutional sized spray dispenser, Shine-up cleans as it waxes, speeding the work of dusting and preventing dust from being released into the air. **S. C. Johnson & Son, Inc., Racine, Wis.**

For more details circle 454 on mailing card.

Saw-Jointer Combination for Woodworking Shops

A low-cost saw-jointer combination is available in the Delta line of woodworking equipment. The new unit combines the deluxe Delta four-inch Precision Jointer and the standard nine-inch tilting arbor circular saw. Lower cost, mobility, convenience and easier material handling are advantages stated. The machine can be easily moved from one location to another



and permits cutting and planing on the same tool. **Rockwell Mfg. Co., Delta Power Tool Div., 461 N. Lexington Ave., Pittsburgh 8, Pa.**

For more details circle 455 on mailing card.
(Continued on page 146)

Fume-Hood Portable Science Table Has All-Around Visibility



All-around visibility with safety is a feature of the new portable science demonstration table for schools and colleges. Smoke, heat and fumes are safely confined and exhausted by the completely transparent fume hood enclosure which permits observation of experiments from any place in the room. The unit is completely self-contained, carrying its own sink, water, gas, electrical outlets, and fume exhaust system, and can be easily moved from room to room for demonstrations in laboratories, lecture halls or classrooms. **Laboratory Furniture Co., Inc., Old Country Rd., Mineola, L.I., N.Y.**

For more details circle 456 on mailing card.

Column Type Showers for Multi-Person Use

The Wall-Mounted type Multi-Person Shower is now available in the Bradley

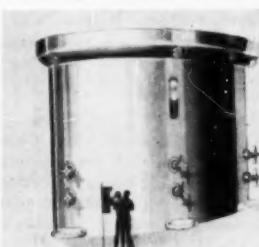
Washfountain line. The showers are provided with three or two adjustable shower heads, soap trays and control valves, enabling one set of piping connections to serve two or three shower facilities with each bather having individual control of water volume and temperature. The new Wall Shower is self-contained, assembled for mounting on walls at any desired

linoleum, rubber and properly sealed wood floors. **Fuller Brush Co., Industrial Products Div., Hartford 15, Conn.**

For more details circle 458 on mailing card.

Book Copying Unit in Verifax Copier Line

The new Verifax Book Copying Unit is a portable device designed as an accessory for other Verifax Copiers. It makes exposures of books, magazine pages or other documents up to 8½ by 11 inches in size. The exposed matrix paper is then activated to produce copies in any of the four Verifax Copiers now available. A vertical wedge-shaped exposure section permits copying of even the most



heights, and is particularly suitable for narrow rooms. **Bradley Washfountain Co., 2203 W. Michigan Ave., Milwaukee 1, Wis.**

For more details circle 457 on mailing card.

Floor Safety and Protection In Slip-Resistant Wax

Retention of slip resistance without any noticeable loss of gloss is an outstanding feature of Fullstop, a light-colored floor polish containing synthetic resins and plasticizers dispersed in water. Fullstop has good leveling properties, is resistant to scuffing, makes no appreciable color change and strips as easily as other floor wax. It is recommended for use on asphalt, vinyl,



tightly-bound books. Safe support prevents damage to the binding of the book during exposure. A specially-designed carrying case available as an accessory makes the unit convenient for copying book pages in any area. **Eastman Kodak Co., Rochester 4, N.Y.**

For more details circle 459 on mailing card.

Finnell Battery-Powered Machine Is Customer Designed

Five years of research and development have gone into the new battery powered scrubber-vacuum combination introduced by Finnell and based on users' requests for a floor machine. The new Mark 20 and Mark 26 machines are engineered to clean



AJUSTRITE CHAIRS AND STOOLS



- Proper classroom posture
- No soiled hands when adjusting seat
- Child can adjust seat—it's so simple

AJUSTRITE TYPING CHAIRS

Model TSC-1520 Typing Chair and Model 2228 Table
Adjust the chair, not the table, and save on your original investment. Saddle shaped hardwood seat adjusts from 16" to 21". Form fitting backrest (metal or plywood) has vertical and horizontal adjustments of 5".

Model CPC-1520 Typing Chair

Form fitting plywood seat adjusts from 15" to 20". Form fitting plywood backrest adjusts 5" vertically and horizontally.

FREE TRIAL Use an AJUSTRITE chair and table for 30 days without obligation. Prove to yourself the many advantages AJUSTRITE offers in comfort, utility and economy. Write today—we'll do the rest.

10 YEAR GUARANTEE

32 Models for Factories • Schools • Laboratories • Hospitals • Offices

AJUSTO EQUIPMENT CO.
515 CONNEAUT ST. BOWLING GREEN, OHIO



up to 21,600 square feet of floor per hour of operation. The quiet action of the battery driven machines makes them particularly suitable for institutional floor cleaning. Powered by four six-volt, 25-plate batteries with an operating life of six to eight hours, the Mark series includes a small, compact battery charger. The machines have a 17-gallon solution dispenser tank and a 19-gallon pick up tank. **Finnell System, Elkhart, Ind.**

For more details circle 460 on mailing card.

(Continued on page 148)

FOR A FEW...



OR A FLOCK!



They're safe (and you'll save) with a 1960 Dodge School Bus

There's safety for *any* number in this year's new-line of Dodge school bus models. For as few as six or eight, in the compact 108" wb. Town Wagon, so practical for small routes or "feeder" use. Or, for a flock of 66, there's the big 254" wb. S600 chassis. Wide choice of "in between" models, too, rated for 30, 36, 48, 54 and 60 pupils.

Different as they are in size, Dodge school buses have two important things in common. (1) *Safety* . . . even beyond NEA requirements, with such features as driver-adjustable emergency brake system . . . and bonus "reserve" power in big Dodge 178- and 202-hp. V-8 engines. (2) *Savings*, because Dodge prices are in line with the lowest.

Dodge is thrifty to operate, too, with V-8's and Sixes that coax extra mileage out of *regular* gas . . . and chassis built the dependable Dodge way to last, last, last!

For these and a *flock* of other reasons, wouldn't it be wise to include your Dodge dealer next time you solicit bids on new school transportation?

DEPEND ON DODGE
TO SAVE YOU MONEY IN TRUCKS
A PRODUCT OF CHRYSLER CORPORATION

Adjustable Backrest on Benchwork Stools

Four new models are available in the Krueger line of benchwork stools. The



standard model is available in heights of 18, 24 or 30 inches and the same stool is

available with a horizontally adjustable backrest. Other models have adjustable telescopic legs. All models are designed to be adapted for correct posture and comfort. The stools have heavy duty construction and the extra large steel seats have a fully beaded bottom edge for safety. The Krueger Metal Products, Green Bay, Wis.

For more details circle #461 on mailing card.

Ten Gallons of Milk Dispensed by Model N-10 Super

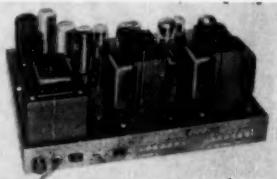
Two five-gallon cans of milk are dispensed by the N-10 Super milk dispenser manufactured by Norris. The redesigned unit is constructed of stainless steel with chrome plated exterior hardware, has two convenient dispensing valves, and an ad-

justable temperature control is mounted on the side of the cabinet. Refrigerated and non-refrigerated dispenser storage stands are also available for the N-10 Super Dispenser. Norris Dispensers, Inc., 2720 Lyndale Ave., S., Minneapolis 8, Minn.

For more details circle #462 on mailing card.

High Fidelity Kits for Electronics Classes

A new high quality stereophonic amplifier, Model HF-87, is available in kit form for easy assembly in electronics classes. It can be used as a stereophonic dual 35-watt amplifier or the two amplifiers can be op-



erated in parallel to deliver 70 watts for monophonic use. The HF-87 is designed and engineered for extremely low distortion and for the greatest possible stability. The kit carries a manual of "beginner-tested" instructions with assembly procedures and illustrations. Electronic Instrument Co., Inc., 33-00 Northern Blvd., Long Island City 1, N.Y.

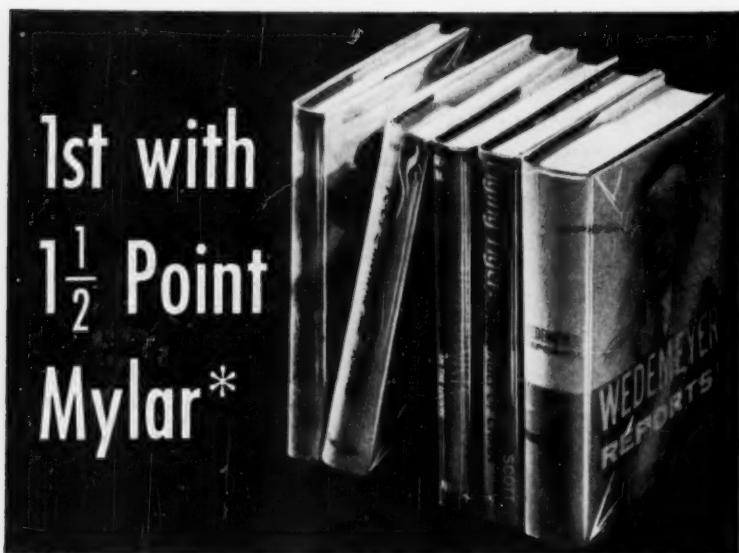
For more details circle #463 on mailing card.

Titan Heating Unit With Wet Back Construction

Compact size with excellent thermal qualities are features of the new Titan 3-pass unit for heat and power. The highly dependable, conservative unit, with complete wet back construction arranged so that hot gases are in constant contact with water cooled steel walls, is constructed for years of trouble-free service with minimum maintenance. Titusville Iron Works Div., Struthers Wells Corp., Titusville, Pa.

For more details circle #464 on mailing card.

GAYLORD Book Jacket Covers



For Greater Protection where it Counts

Among the advantages offered by Gaylord Book Jacket Covers are:

Extra Heavy 1½ Point (.0015) Mylar combined with a Kraft paper liner to provide maximum protection.

Super Smoothness with a natural flexibility that permits easy handling.

Bottom Edge Pre-folded to double thickness to keep edges neater, stronger —gives longer wear without added bulk.

Only Six Sizes Needed for regular books ranging from 7½" through 16".



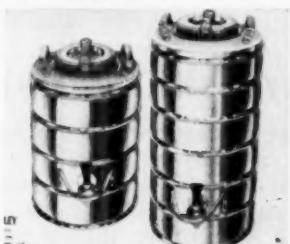
Gaylord Book Jacket Cover. Note double thickness, pre-folded bottom edge. Top is easily, quickly folded to conform to jacket.

Send for illustrated folder that contains complete information.

*DuPont trademark for its polyester film

Insulated Beverage Servers in Two Capacities

Two new models of the Stanley insulated beverage servers are now avail-



able in three and five-gallon capacities. Designed for serving hot or cold beverages in cafeterias or at special areas, they are ruggedly constructed with complete insulation and extreme thermal efficiency. The inside of the bottom is pitched toward the spigot to permit complete drainage without tilting and the open guard on the spigot permits raising for large cups. Landers, Frary & Clark, New Britain, Conn.

For more details circle #465 on mailing card.



library supplies

Gaylord Bros., Inc.
SYRACUSE, N.Y. STOCKTON, CALIF.

"the house of prompt, friendly, personal service"

**Starter Kit
for Overhead Projection**

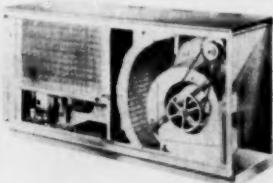


Users of Vu-Graph Overhead Projectors now have available the new Beseler Starter Kit to assist in preparation of materials for teaching and demonstration. A complete selection of tools and materials for quick illustration of important points is contained in the new kit for preparation of material in front of the class or in advance. Illustrations can be in black and white or in color and material can be traced, drawn, lettered or typed. The kit is easy to use, requires no special skill or training and comes in a heavy duty case. Charles Beseler Co., 219 S. 18th St., East Orange, N.J.

For more details circle #466 on mailing card.

**Air Processing Units
for Use With Central Heat**

Steam or hot water coils built into the new Lennox air processing units permit use of the Comfort Curtain system in class-



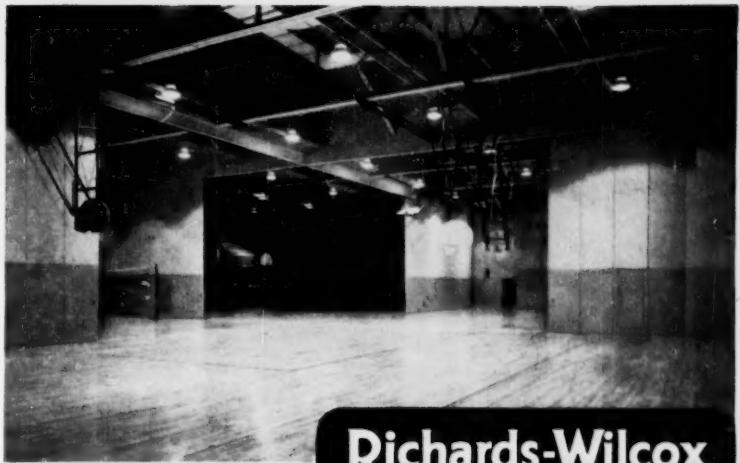
rooms with a central steam or hot water heat source. The new units are available in three colors with matching vinyl tops and are built of heavy-gauge steel, completely factory wired and assembled for quick installation. The DVS2-1200 is used with steam and the DVW2-1200 with hot water. Lennox Industries Inc., P.O. Box 1294, Des Moines, Iowa.

For more details circle #467 on mailing card.

**Folding Table
Features Adjustable Legs**

A telescoping leg arrangement which is spring-operated and has finger-tip control is featured on the new adjustable height folding table by Foldcraft. With this leg arrangement, the table can be adjusted from 21 to 31 inches in height, and rigidity is assured with a positive locking device on each leg unit. The table tops are available in unfinished pine, Waytex hardboard with a honeycomb core and Pionite plastic laminated to a plywood core. The table, which will support weights up to 1500 pounds, folds flat to a compact three inches for storage. Foldcraft Co., Mendota, Minn.

For more details circle #468 on mailing card.
(Continued on page 150)



4-way R-W "FoldeR-Way" Partition
Janesville, Wisconsin Senior High School
Law, Law, Potter and Nyström, Architects

Richards-Wilcox
FoldeR-Way

**FOLDING
PARTITIONS**

★ GYMNASIUMS
for ★ AUDITORIUMS
★ CLASSROOMS



R-W Aluminum "FoldeR-Way" Partition
West Senior High School, Aurora, Illinois
Childs and Smith, Chicago, Architects



Deluxe veneered R-W Partition with chalkboard
University of Pittsburgh, Pittsburgh, Penn.
Schmidt, Garden & Erickson, Chicago, Architects



R-W "FoldeR-Way" classroom divider
Grace McWayne School, Batavia, Illinois
Raymond A. Orput, Rockford, Architect

NOTE . . . R-W also manufactures a complete line of top-quality Wardrobes for schools, churches and institutions. Write today for complete information.

R-W Folding Partitions effectively and economically solve the problem of dividing space and allow you to efficiently utilize every available foot of valuable floor space. Ideal for dividing gymnasiums, auditoriums and classrooms to meet the changing needs of various sized groups. R-W sound insulated Folding Partitions can be furnished in all types and combinations of wood, vinyl, metal or duck covering to meet your decorating plan. Available in a type and size to meet almost any conceivable situation . . . manually or electrically operated.

Contact your local R-W Sales-Engineer . . . he will survey your problem and recommend the right type and size "FoldeR-Way" Partition to do the job . . . there's no obligation involved for this R-W service.

**SEE OUR CATALOGS IN SWEETS
PARTITIONS 22d WARDROBES 23d**

Richards-Wilcox
MANUFACTURING COMPANY

SCHOOL EQUIPMENT DIVISION



520 W. THIRD STREET, AURORA, ILL. • Branches in Principal Cities

For additional information, use postcard facing Cover 3.

Keystone Tachette for Individual Use

A small, hand-operated Tachistoscope for near-point use is available for individual



ual use in the Keystone Tachette. Standard Tachistolides (R) are used, including such subjects as shorthand, typewriting, reading, number and fraction combinations and foreign languages. Designed for use by individuals who need training to supplement class work, the Tachette permits change of speed of flashing from very slow to more than 1/100 of a second. **The Keystone View Co., Meadville, Pa.**

For more details circle #469 on mailing card.

Pre-Cut Foil Sheets in Dispensing Package

Handy pre-cut sheets of aluminum foil for use in the kitchen, home economics department and other departments where small amounts of material are wrapped for storage, are now available in an interfold pop-up box. In addition, self-dispensing rolls and rectangular cut sheets of foil are available for institutional use. **Kaiser Alu-**

minum & Chemical Sales, Inc., 1924 Broadway, Oakland, Calif.

For more details circle #470 on mailing card.

Internal Filter on Heavy Duty Master Vac

The new Model P-1008 heavy duty Master Vac is redesigned to provide a new internal filter while maintaining high efficiency. The patented pleated filter supplies maximum filtering area and the new machine is adaptable to wet or dry cleaning



with a powerful blower and a portable shoulder vacuum. Large rubber tired wheels and center swivel caster make the machine easy to handle. **Premier Co., 735 Woodlawn Ave., St. Paul 16, Minn.**

For more details circle #471 on mailing card.

Contemporary Drapery Designs in Edwin Raphael Line

A wide variety of standard and custom colors are available in the two new con-

temporary drapery designs added to the Edwin Raphael line for institutional use. Called Quiescence and Tournament, the designs are printed 45-46 inches wide on Linplain weave fabric which is pre-shrunk, wrinkle and dirt resistant and non-abrasive.

Edwin Raphael Co., Inc., Holland, Mich.

For more details circle #472 on mailing card.

Versatile Mower Cuts and Trims

Cutting and trimming can be completed in one operation with the new Locke Single Unit Power Mower and Trimmer. The versatile unit facilitates maintenance and saves costs since it can be used on large or small tracts as well as lawns and garden areas. The power mower has full-floating, counterbalanced cutting units which follow the natural contours of the lawn to as-



sure an even cut on sloping or rolling terrain. The design permits cutting right to the edge of flower beds and trees. **Locke Steel Chain Co., Lawn Mower Div., 1343 Connecticut Ave., Bridgeport 1, Conn.**

For more details circle #473 on mailing card.

FREE BROCHURE TELLS LATEST DEVELOPMENTS OF TAPE TEACHING SYSTEMS

Many modern educators believe that the answer to the overcrowded classroom and teacher shortage lies in revolutionary electronic tape teaching systems.

Everyone in the field of education should read this brochure. It tells the story of tape teaching — how it began and where it is being used. It shows the startling results of Metropolitan Tests of students "taught by tape," compared to students taught by conventional methods.

The free brochure also shows Modern Electronics MECOTAPE TEACHING

SYSTEMS — how they work and how they fit into any size classroom. Even more important, it shows the development of MECOTAPE through years of classroom and laboratory research that makes MECOTAPE the pioneering leader in the field of Tape Teaching Systems.

The brochure is FREE. Just fill out the coupon and mail it today.

MECOTAPE

TEACHING SYSTEMS



Please send me your FREE Brochure on MECOTAPE TEACHING SYSTEMS.

Name _____

Occupation _____

Address _____

City & State _____



MODERN ELECTRONICS/2000 Broadway/Department NS/San Antonio, Texas

**3/R Line of Tables
in Three Shapes**



IRWIN 3/R LINE

Functional, sturdy tables in three shapes are available in the new Irwin 3/R Line of classroom furniture. The streamlined, clean design with swaged tubular leg assures maximum knee clearance. Tables are available with nylon or steel glides, full plywood cores surfaced with Textolite, and with bookracks if desired. Shapes include round, trapezoidal and rectangular in sizes and table heights for use in any classroom. **Irwin Seating Co., Grand Rapids, Mich.**

For more details circle #474 on mailing card.

Glass Laboratory Ware

Strengthened for Student Use

Pyrex glass is used in the new economy line of strengthened glass laboratory ware designed specifically for student use. The items are mechanically strong and resistant to heat, heat shock and chemical attack. Included in the line are a volumetric pipette with large tip opening, a straight bore stopcock burette with permanent Accu-red graduations, a thistle tube funnel



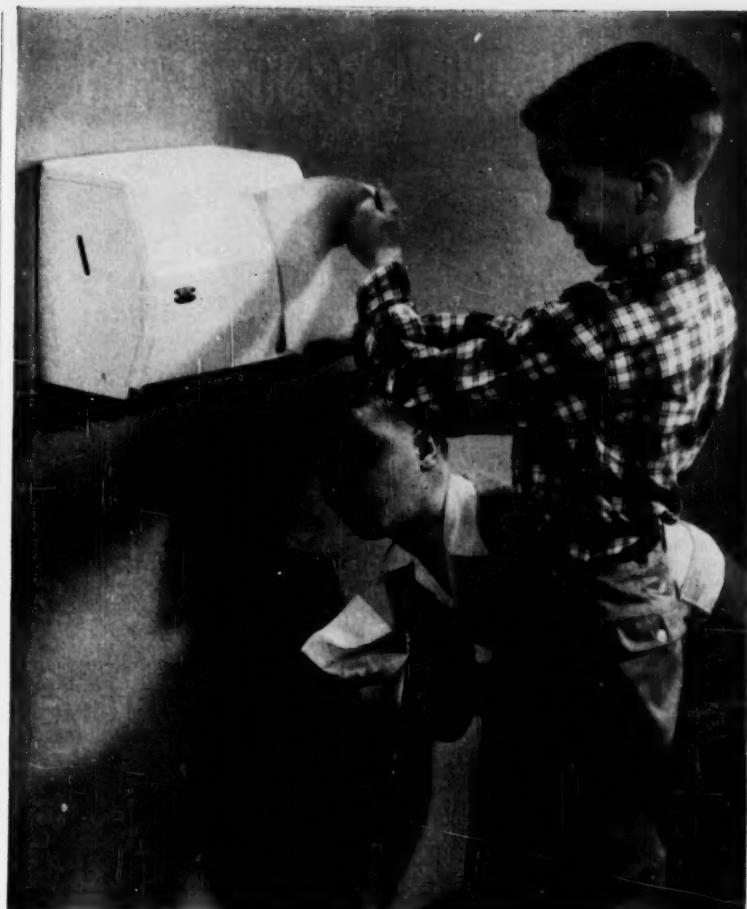
with flat-sided top to prevent rolling, and labeled and plain reagent bottles. In sizes for school use, pipettes are made with thicker walls for added strength. **Corning Glass Works, Corning, N.Y.**

For more details circle #475 on mailing card.

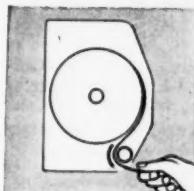
**Photocopy Halftone Paper
Permits Copies of Photographs**

A new type of photocopy material called PH (Photocopy Halftone) paper, is now available for use with Nord Photocopy Machines for copying any type of photograph, whether in black and white or color. Quick, inexpensive copies are quickly made which can be ferrotypes to give high, glossy, professional finishes. PH papers can also be used to make acceptable halftone originals for use on electronic stencil cutting machines and a special film is available to make masters for blue-print and diazo machines. **Nord Photocopy & Business Equipment Corp., 300 Denton Ave., New Hyde Park, L.I., N.Y.**

For more details circle #476 on mailing card.
(Continued on page 152)



**With Steiner roll towels
They're helping cut towel waste 20%**



HOW IT WORKS. Towels are in roll. User turns crank to get toweling. He then tears off towel. Result: fewer towels used . . . fewer towels tossed around washroom . . . less time spent by janitors in cleanup. Sturdy cabinet withstands abuse.

Young hands grab for towels . . . waste starts and washroom costs soar. But not if you have Steiner Company controlled roll paper towel dispensers in your washrooms. Here's why:

User takes from dispenser only amount of toweling he needs . . . no grabbing a handful of towels that aren't needed, half used and then thrown away.

You can cut towel costs up to 20% with Steiner controlled roll dispensers. Install them on a trial basis and see how you save. For more information contact your local janitorial supplier or sanitary paper distributor—or mail attached coupon.

STEINER COMPANY

740 RUSH STREET, CHICAGO 11, ILL. DEPT. D-12

Please send me free bulletins on Steiner controlled roll paper towel dispensers.

NAME _____

SCHOOL _____

STREET _____

CITY _____ ZONE _____ STATE _____

LOW ABSORBENCY PROTECTION



*water absorption by weight
is less than 0.20% in 48 hours*

ALBERENE STONE

For FREE literature and technical assistance address: ALBERENE STONE
(A DIVISION OF THE GEORGIA MARBLE COMPANY) 386 FOURTH AVE., NEW YORK 16, N.Y. DEPT. 5

NEW

roll this laboratory into any room "INSTRUCTOLAB"



the only science demonstration table
that has everything

overhead projector projects live experiments. Complete with 200 transparencies of science charts, tables, diagrams, pictures, etc. light stage dramatically lights experiments safety shield of heavy plate glass water supply electrically pumped gas bottles containing oxygen, hydrogen, helium, carbon dioxide and propane electrical system variable voltage regulator, 3 A.C. outlets and 30' extension cord vacuum and pressure system 1/4 hp pump creates a vacuum of 0.02mm of mercury apparatus 110 chemicals plus all necessary apparatus for chemistry, physics and biology instruction booklets give complete information on the use of the table and all apparatus

designed and manufactured by

LABORATORY FURNITURE CO., INC.

Old Country Road • Mineola, New York

For complete details
write today for
Bulletin N12

Large Heavy Duty Griddle in Toastmaster Thunderbolt Line



The Thunderbolt "850" Model 7D1 Griddle has an 864-square inch cooking surface with maximum power for speedy cooking. Four independently controlled temperature dials permit the use of varying temperatures on four areas of the griddle to accommodate different foods. The stainless steel unit, for counter-top installation, requires no banking strips and is built for use with other Thunderbolt equipment for complete food service. **Toastmaster Div., McGraw-Edison Co., Elgin, Ill.**

For more details circle #477 on mailing card.

Gymnasium Equipment Has Improved Features

Porter parallel bars for gymnasiums are now offered with fiberglass handrails which will not break or splinter. They are available as optional equipment, or can be purchased separately to replace conventional hickory rails on Porter Model 74 parallel bars. An exclusive construction technic gives the new handrails the same feel as wood as well as uniform bounce. Other new features of the bar include rubber feet for floor protection and a new design permitting the equipment to be raised on its casters for easy rolling over door jambs and other obstructions. **Porter Athletic Equipment Co., Schiller Park, Ill.**

For more details circle #478 on mailing card.

Electric Cabinet Heaters for Maximum Flexibility



Maximum flexibility of arrangement and operation are assured with the newly designed Ig electric cabinet heaters. Two blow-through units with direct-drive fan assemblies and a draw-through model with V-belt-driven fan assembly are included in the new line. Units are available for floor, ceiling, wall or inverted mounting, non-recessed, semi-recessed or concealed. Three types of control available include manual, pneumatic and automatic and the contemporary design of the cabinets of formed furniture steel makes them suitable for use in any school. **Ig Electric Ventilating Co., 2850 N. Pulaski Rd., Chicago 41.**

For more details circle #479 on mailing card.

Room-Darkening Material Is Flame-Resistant

"Ivora" is the name given to a flame-resistant vinyl drapery material for room darkening. Specifically constructed for school use, "Ivora" comes with an aluminum coating on the back to ensure sufficient dim-out for clear screen images without complete room black-out. The product has the natural texture of a conventional fabric, is soft, lightweight, and attractive, with high strength and resistance to tear. It can be cleaned with a soaped cloth or sponge and is available in four solid pastel colors. **E. I. duPont de Nemours & Co., Room D-8033, Wilmington, Del.**

For more details circle #480 on mailing card.

Air Conditioning "Circus" Visualizes Operation

Year-round air conditioning units actually in operation in room settings are set up



in the Warren Webster Mobile Demonstrators available for presentation at school, hospital, college or other institution. The display trucks are designed to show quickly the simplicity of use and ease of installation.

tion of air conditioning units and are accompanied by company engineers to answer questions and discuss applications. **Warren Webster & Co., Inc., 17th & Federal Sts., Camden 5, N.J.**

For more details circle #481 on mailing card.

Universal Pan Support Angle for Food Service Cabinets

Various sized steam table, roasting, and bun pans as well as service trays can be carried interchangeably without changing



pan support angles with the new Universal Angle recently introduced. Use of the new Cres-Cor Universal Angles in a cabinet or rack simplifies storage or transportation of foods in original pans, as well as proportioned meals on service trays. The Universal angles are readily removable and adjustable on 1 1/2-inch centers. **Crescent Metal Products, Inc., 18901 St. Clair Ave., Cleveland 10, Ohio.**

For more details circle #482 on mailing card.

Zip-Top Paper Towel Carton Opens by Pull Tab

A convenient tab at one end of the Zip-Top tape which pulls out across the top



makes it quick and easy to open Nibroc paper towel cartons. The carton need not be cut and can be re-used for storage or shipping. Maximum sanitation of contents is assured by the new package. **Brown Company, Box 131-Z, Boston 14, Mass.**

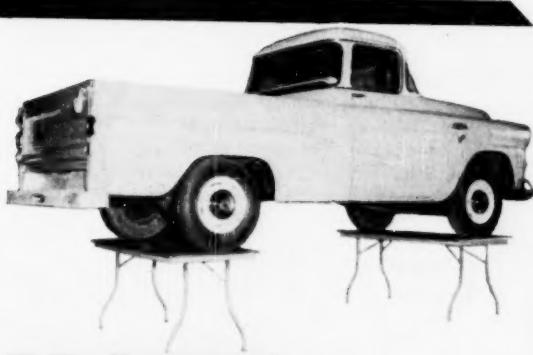
For more details circle #483 on mailing card.

Hot Food Kitchen in Streamlined Design

Space is saved and service speeded with the new and streamlined model of the Heinz Hot Food Kitchen recently introduced. Designed for use in lunch rooms and for single service preparation, the electric kitchen prepares soups in two minutes and hot plate lunches in three minutes. It occupies only 12 1/4 by 18 inches of space and has electrically timed outlets for two hot cups for hot food preparation, with a swing-away can opener. **H. J. Heinz Co., Pittsburgh 30, Pa.**

For more details circle #484 on mailing card.

(Continued on page 154)



PROVEN STRENGTH!

Actual photograph above hints at the rugged, long-haul strength of Metwood tables. This tri-balance strength performs in some of America's finest institutions. Send for literature today, without obligation. Find out why professional buyers who check and test—choose Metwood!

Metwood
Hanover
FOLDING TABLES

FUND-RAISING
BOOKLET FREE!
A service for clubs,
churches, etc. Write
without obligation!

Hanover, Pa.

QUADRALINE
by american desk



A complete line of school furniture in future tense! You'll notice a marked improvement in working conditions with a unit like the "Jr. Exec." shown with Series 500 Chair. A counterpart of adult working facilities, it's generous with work space — economical with space requirements! A rugged, well-balanced unit... easily adapted to changing class needs. Permits grouping, side-by-side or staggered seating arrangements.

For Competent Assistance, Complete Details, Ask Your State AD Representative



american desk manufacturing co. temple, texas

Tray and Silverware Dispenser in Stainless Steel

A portable dispenser for silverware and cafeteria trays is now available from Lin-



coln in stainless steel. The unit stores enough trays and silverware for serving up to 200 persons and the upper compartments also dispense straws and napkins. The convenient height is suitable for children or adults. **Lincoln Mfg. Co., Inc., P.O. Box 2313, Fort Wayne, Ind.**

For more details circle #485 on mailing card.

Garlite 101 Fixture Has Plastic Dualens Shield

A two-tone plastic Dualens lighting fixture introduced as the Garlite 101 has sides in diffuse white and a patterned crystal clear bottom. Side brightness is cut while allowing highly efficient down lighting. The shield may be lowered from either side and hangs on a continuous hinge. **Garden City Plating & Mfg. Co., Garey Lighting Div., 1750 N. Ashland Ave., Chicago 22.**

For more details circle #486 on mailing card.

Sterilizer-Washer

Sanitizes Urns, Cans and Drums

Coffee and other beverage urns, food dispensers, waste cans, drums and large mixing kettles and containers can be cleaned and sanitized with the new Aer-Void Sterilizer-Washer. It washes, rinses, sterilizes, deodorizes, preheats and pre-cools, operating quickly and easily by foot pedal action. The device employs a pressure propelled ball bearing, cyclonic whirling, spray nozzle that cleans with a

lutions where 45 to 50-ohm lines are encountered. Replacement diaphragm voice coil kits are also offered in standard impedance or 45-ohms, allowing easy field maintenance or conversion to either standard impedance or 45 ohms. **Electro-Voice, Inc., Buchanan, Mich.**

For more details circle #488 on mailing card.

Electric Food Warmer Has Adjustable Steel Slides

Two pairs of removable and adjustable stainless steel slides in the new Thermotainer Type C-4 Electric Food Warmer adapt it to all standard sizes of pans, baskets, trays and insets. The flush-mounted, shelf-type doors simplify loading and unloading and provide for pass-through construction. All compartments are controlled by a single, full-range thermostat and have individual moisture control. The Thermotainer "channeled heat" principle assures uniformity of tempera-



scouring action. Installation is adaptable to all plumbing conditions. **Vacuum Can Co., 19 S. Hoyne Ave., Chicago 12.**

For more details circle #487 on mailing card.

Public Address Speakers Available with 45-Ohm Voice Coils

Four public address speakers in the Electro-Voice line are now available with 45-ohm voice coils, simplifying the use of public address speakers in intercom installa-

tions, operating costs are low, and construction is of stainless steel. **Franklin Products Corp., 400 W. Madison St., Chicago 32.**

For more details circle #489 on mailing card.

Student PROOF yet Instantly Adjustable!

PERFECT POSTURE—INSTANTLY!

- Standard School Colors
- Instantly Adjustable
- Tubular Design
- Sturdy Maple Seats

Here's inexpensive posture seating with all the adjustments of that used in business. The height adjusts instantaneously from 14" to 22"; the 5-ply maple seat pivots on a lifetime swivel; the back adjusts in and out, up and down. Write today for full information. Prices on similar chairs start at

\$7.95

The one
Dependable Guarantee...
FOREVER!

DEPENDABLE MANUFACTURING CO.
2407 FORT CROOK ROAD, BELLEVUE, NEBRASKA

You say this Tergisyl® disinfectant-detergent cleans, deodorizes and disinfects at the same time? Sounds like just what we need for the halls and classrooms as well as the gym and lavatories—got to do everything possible to check the spread of disease germs this year.

If hospitals like it so well, it should be just right for schools. Know if it comes in large sizes?

Sure—even 50 gallon drums—that's what we ordered—but it comes in 15, 5, and even 1 gallon sizes, too.

That's right, we're getting Tergisyl® for every school in the district.

Why don't you send for samples? We did, and were convinced on the first trial.

One 4 oz. sample makes 1 gallon of cleaning-disinfecting solution. Write for samples today.

Lehn & Fink  **Professional**
PRODUCTS CORPORATION DIVISION
4934 LEWIS AVE., TOLEDO 12, OHIO
Makers of Lysol® Brand Disinfectant

Speedomatic Lighting Troffers Are Extra-Shallow

Fast Installation and shallow area are features of the new Speedomatic lighting troffers. Recessing less than five inches, the troffers are available in four basic types to fit all modern ceilings. An exclusive telescopic door frame automatically adjusts the Speedomatic to assure perfect fitting, even in irregular ceiling openings. A single width of metal frames the installed shielding, offering maximum illuminated area. The doors open without mechanical catches and the wiring access door provides ample room to reach cables. **Smithcraft Lighting, Chelsea 50, Mass.**

For more details circle #490 on mailing card.

Steel Teachers Desk Has Plastic Top

Single and double pedestal teachers desks with attractive, durable plastic tops are now available in the Honor line. Sturdy



ly constructed of steel, the desks have modern styling with top extension for conference. Overall locking is controlled through the center drawer. The desks are offered

in gray or blue, with coral, yellow, spruce or sandalwood drawer fronts and back panels. **The H-O-N Co., Muscatine, Iowa.**

For more details circle #491 on mailing card.

Positive Vacuum System in Statler-Petoskey Floor Sander

A powerful new type vacuum system that pulls all sanded particles into a bag without dust, is a feature of the new Statler-Petoskey Floor Sander. No edging equipment is needed as the machine sands flush with



moldings. The twin sanding pads are reversible and easily snapped off. The sander is easy to operate, can be carried, and the design permits the handle to swing to either side. **Statler-Petoskey Corp., 20356 Grand River Ave., Detroit 19, Mich.**

For more details circle #492 on mailing card.

Combination Projector Doubles Light Power

The V-25-P is a new projector which handles either 35mm filmstrips or two by two-inch slides. The versatile unit com-

bines a new light source with a specially designed optical system to produce twice the effective light power for improved classroom projection. Pop-up lamp ejection



facilitates changing without the possibility of burns. A new venturi-style lamp housing in the new super-cooling system permits unlimited showing time. **Viewlex, Incorporated, 35-01 Queens Blvd., Long Island City 1, N.Y.**

For more details circle #493 on mailing card.

"Speed Feed" on Photocopier Permits Faster Insertion

Documents can be inserted faster for photocopying with the new "speed feed" feature of the Dial-A-Matic "Auto-Stat." Specially designed rollers which clamp the document being inserted and guide it automatically are responsible for the easier and faster operation of the desk-top, all-purpose copying unit. **American Photocopy Equipment Co., 2100 Dempster, Evanston, Ill.**

For more details circle #494 on mailing card.
(Continued on page 156)

ARNCO

rings the bell for
practical, low cost
school wardrobes!

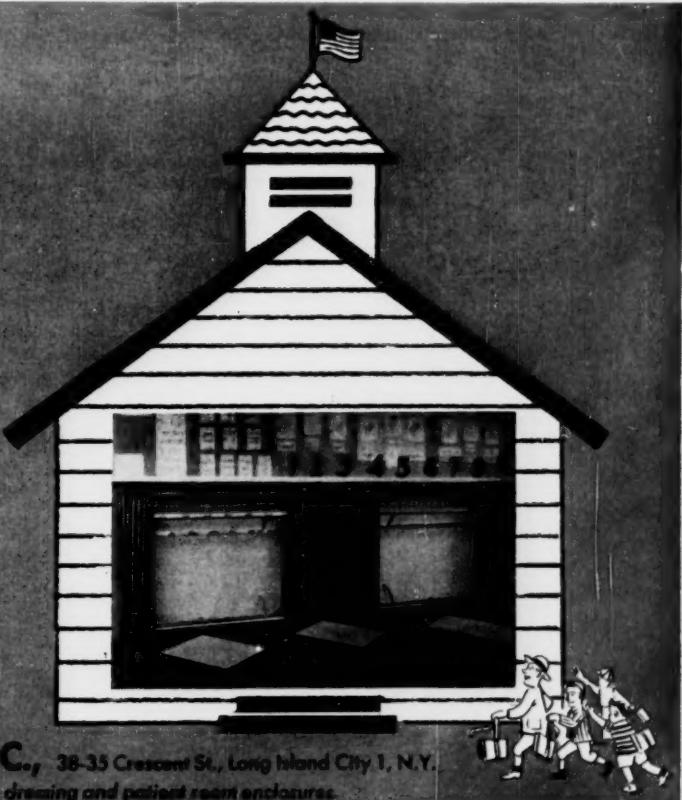
Here's a school wardrobe that has everything! Compact . . . easy to install . . . this good-looking hat and coat rack is finely engineered in non-peeling aluminite finish, lasts indefinitely. Furthermore . . . it becomes a marvelous space-saving unit when combined with the spacious teacher's wardrobe and supply closet and smooth, fire-proof gliding curtaining.

From every angle . . . this convenient, durable, low-cost school wardrobe represents an unbeatable buy!

Write for folder.

A. R. NELSON CO., INC., 38-35 Crescent St., Long Island City 1, N.Y.

Write for cubicle circular on dressing and patient room enclosures.



Liquid Soap Dispenser Has Unbreakable Globe

Unbreakable plastic is used to form the globe of the new Model 829 Basin Type



Liquid Soap Dispenser. The body is formed of chrome plated brass and the tamper-proof precision-machined pushbutton spout of stainless steel ensures trouble-free per-

formance. **Bobrick Dispensers, Inc., 1839 Blake Ave., Los Angeles 39, Calif.**

For more details circle #495 on mailing card.

Portable Vacuum Cleaner Features Powerful Motor

An extremely powerful motor is used in the manually propelled portable JB 365 heavy-duty vacuum cleaner. It can easily be converted to a power blower for help in cleaning hard to get at areas or to a wet pick-up for safe, efficient liquid recovery. The wet-pick-up adapter is used with a single blade slide-on squeegee that picks up liquid on both forward and backward strokes. **Pullman Vacuum Cleaner Corp., 25 Buick St., Boston 15, Mass.**

For more details circle #496 on mailing card.

Literature and Services

- An informative booklet on "The Microphone in Public Address Systems" is available from Shure Brothers, Inc., 222 Hartrey Ave., Evanston, Ill. The 8-page brochure describes the components of a public address system, gives tips on buying or improving a system, and carries an instructive section on "Mastering the Microphone."

For more details circle #497 on mailing card.

- Two methods for promoting safe bicycle riding habits are offered by United States Rubber Co., Cycle Tire Dept., 549 E. Georgia St., Indianapolis 6, Ind. A word puzzle book, "U.S. Royal Word Puzzle Book," contains eleven word puzzles which, when solved, contain safety slogans and reminders for bicycle riders. Official membership cards for the "Royal Safety Rider Club" contain 12 safety rules in addition to space for name, address, telephone number, make and serial number of bicycle.

For more details circle #498 on mailing card.

- Maintenance and refinishing methods for most types of laboratory work surfaces are described, with prices, in the new six-page "Maintenance Guide" available from Keweenaw Mfg. Co., 5023 S. Center St., Adrian, Mich. Also described and priced are some commonly used laboratory service fixtures.

For more details circle #499 on mailing card.

- The "Specification Manual for Northern Hard Maple, Beech and Birch Flooring," available from the Maple Flooring Manufacturers Assn., 35 E. Wacker Drive, Chicago 1, lists physical characteristics and available lengths of this type of flooring.

For more details circle #500 on mailing card.

- School fires are discussed in a recent issue of "Metal Lath News" published by Metal Lath Manufacturers Assn., Engineers Bldg., Cleveland 14, Ohio.

For more details circle #501 on mailing card.

- Five Pointer System lesson manuals are now available from Thomas Organ Co., Sepulveda, Calif., or Pointer System, Winona Lake, Minn. The manuals cover a wide variety of methods for teaching organ.

For more details circle #502 on mailing card.

- Complete data on Ceco hollow metal doors with matching frames and hardware are given in Brochure No. 2040-G, published by Ceco Steel Products Corp., 5601 W. 26th St., Chicago 50. The 32-page booklet illustrates flush and panel designs as well as louvered doors.

For more details circle #503 on mailing card.

- "School Shop Furnace Equipment" is illustrated and described in a new brochure available from Sunbeam Equipment Corp., Meadville, Pa. Shown are furnaces for melting, forging, hardening, tempering, carburizing and annealing.

For more details circle #504 on mailing card.

- Catalog No. 60, available from Payson-Harris & Reed, Inc., 2916 W. Jackson Blvd., Chicago 12, illustrates the complete line of caster and wheel products, from heavy industrial to office chair models. Specifications and uses are given for the general line for several new models.

For more details circle #505 on mailing card.

(Continued on page 158)

PUSH BUTTON *Speed Selection* from to in seconds

or to any intermediate speed, instantly

Just push a button and watch the large tachometer dial on the headstock!

It's that easy!

The work is done by a motor driven speed changer. It accelerates or slows the lathe to any desired speed in seconds. With a 10:1 ratio, this new variable drive makes it easy to select from a wide range of speeds—200 to 2000 rpm in direct drive and 40 to 300 rpm in back gear.

Maximum stability and smooth

SHELDON Variable Speed PRECISION LATHES



SHELDON MACHINE CO., INC.
4266 N. Knox Ave.

Chicago 41, Ill.

SIMPLE OPERATION . . . LOW COST MAINTENANCE!

Montgomery
SYNCHRONOUS

PROGRAM CLOCKS

These two factors, in city after city, are dictating the replacement of complex, elaborate, high maintenance systems with dependable Montgomery Synchronous Program Clocks. Investigate! Ask your school supply dealer or write for details.

ONE AND TWO CIRCUIT



NEW! MULTI-CIRCUIT

Operates up to 5 separate schedules on 1 to 5 groups of signals. 12 or 24 hour models. Signals from 2 to 25 seconds duration. Calendar switch regulates operation. Program mechanism and clock movements perfectly synchronized; set simply by turning clock hands. Pushbuttons do not disturb automatic operation.

MONTGOMERY MFG. CO.
OWENSVILLE, INDIANA

For all-round deodorizing . . .



ROUNDS

Fragrant, laborless
deodorant discs for urinals,
bowls, garbage pails, lockers, closets

Deodorama ROUNDS cost in use averages only a fraction of one cent a day. Rounds are formed under 70,000 pounds pressure; are dense and durable. Fragrance is locked in: lasts until the last particle has vaporized—there's no harsh "moth cake odor." Packed eight to the telescoping box—each Round sealed airtight—easy-to-shape Holzit wire holder in every box. For literature write to The C. B. Dolge Company, Westport, Conn.

For free sanitary survey
of your premises ask
your Dolge service man

Disposable
DOLGE
WESTPORT, CONNECTICUT

since 1830 makers of furniture for public use

THONET

write for illustrated material. **THONET INDUSTRIES INC.**

One Park Avenue, New York 16, N. Y.

SHOWROOMS: New York, Chicago, Detroit, Los Angeles,
San Francisco, Dallas, Miami, Statesville, N. C.



design 2716

- A 16-page booklet, written for high school and college freshmen chemistry students, is available from United States Steel Corp., Public Relations Dept., 71 Broadway, New York 6. Divided into seven major sections, the booklet, "Principal Alloying Elements in Steel," gives educational data and ends with questions and answers and a problem in mathematics.

For more details circle #506 on mailing card.

The revised edition of the "Pocket Manual of Heating" is available from Dunham-Bush, Inc., 179 South St., West Hartford 10, Conn. at \$1 per copy. Sections on wet heating systems, radiation, unit heaters, pumps, blower unit heaters, special purpose pumps and control equipment are among the many features of the handbook.

For more details circle #507 on mailing card.

- "Chemistry for Today" is the title of a booklet discussing the new films made cooperatively by the American Chemical Society and Encyclopaedia Britannica Films Inc., 1150 Wilmette Ave., Wilmette, Ill. The films present a full year's course in chemistry and employ the most up-to-date presentation material available. The descriptive booklet is designed for the information of school administrators, teachers and parent groups.

For more details circle #508 on mailing card.

- The "1959 Catalog and Instructional Guide" lists and describes books and other educational materials published by Chil-drens Press, Jackson and Racine, Chicago.

For more details circle #509 on mailing card.

- How the Wheelite multiplies the usefulness of audio-visual equipment is discussed in a new leaflet prepared by Gruber Products Co., 2223 Albion, Toledo 6, Ohio. Photographs illustrate the facility with which audio-visual equipment is handled when the Wheelite is used, and how all of the necessary equipment is carried on the mobile unit which also serves as a projection table.

For more details circle #510 on mailing card.

- Home economists, food technicians and professional writers collaborated in preparation of the new **General Foods Kitchen Cookbook** which should be of interest and value to teachers and students in home-making departments as well as to those concerned with food service. Designed to help in the planning, preparation and serving of complete meals, and arranged by meal situations, the 448-page book has full color illustrations and line drawings and is now available from General Foods, White Plains, N.Y. Pages are grease-resistant, the cover is washable, and the book lies flat when open.

For more details circle #511 on mailing card.

- The "Plan-a-Shop" cut-out kit developed by Duro Metal Products Co., 2651 N. Kildare, Chicago 39, consists of a colorful brochure outlining the basic principles of shop planning, a large blueprint floor plan and dimensional power tool cut-outs which are scaled to size. The cut-outs are printed on hard cardboard and may be used repeatedly.

For more details circle #512 on mailing card.

"Electronic Aids to Education" are listed in the new eight-page catalog available from Radio Corporation of America, Camden 2, N.J. Such items as school sound systems and components, radios, 16mm projectors, language laboratory systems, test equipment, electron tubes and broadcast transmitters are described.

For more details circle #513 on mailing card.

- Control systems for hot water, steam, gas-fired and electric unit ventilators are described in the "Unit Ventilator Control Application Manual" available from Barber-Colman Co., 1330 Rock St., Rockford, Ill. Actual control applications are shown and complete cycles of operation, damper sequence charts, temperature control specifications and installation data on all models in the line are included.

For more details circle #514 on mailing card.

- The 1960 catalog of electronic parts and equipment, including a complete line of radio and electronic kits for teaching purposes, is available from Allied Radio Corp., 100 N. Western Ave., Chicago 80. Over 40,000 items are listed in the 444-page catalog.

For more details circle #515 on mailing card.

- Informative discussions on "Fire-Resistant Construction in Modern Steel-Framed Buildings" is available, in editorial text form, in a 44-page booklet published by the American Institute of Steel Construction, Inc., 101 Park Ave., New York 17. For more details circle #516 on mailing card.

For more details circle #517 on mailing card.

- A new short-run printing technic makes it possible for teachers to have texts tailored to their own syllabus and books printed at low cost for limited distribution. Available from G. H. Hall & Co., Dept. D, 97 Oliver St., Boston 10, Mass., the service permits reproduction in a single folioed volume, seven by ten or five by seven inches in size, of pages from existing publications, typewritten or mimeographed pages, line drawings and the like. Single library copies of rare or worn books can also be reproduced in quantities for use in classes and to relieve the strain on "reserved shelves" in libraries.

For more details circle #518 on mailing card.

- The full line of drawing sets and equipment, instruments, materials, designing aids and measuring devices manufactured by Alvin & Co., Inc., 611 Palisado Ave., Windsor, Conn., is described and illustrated in the new Catalog and Ready Reference Chart available from the manufacturer.

For more details circle #519 on mailing card.

"Educational Aids for Schools and Colleges" are listed and described in the 1959-60 catalog published by the National Assn. of Manufacturers, 2 E. 48th St., New York 17. Motion pictures, pamphlets and teacher reference materials are included.

For more details circle #520 on mailing card.

- Quantity recipes for the use of Kellogg's Corn Flake Crumbs for breading, crumbing, pie shells and the like, are presented in a folder entitled "Magic No. 2 for Quantity Service." Available from Kellogg Co., Battle Creek, Mich., the leaflet contains recipes for from 20 to 125 portions.

For more details circle #521 on mailing card.

(Continued on page 160)

They're TAYLOR-made... they're streamlined



• It's new, it's a Halsey Taylor first... the WALL-MOUNT Cooler. Mounted on the wall, off the floor! No exposed fittings, easy to keep clean, no corners to catch dirt!



Ultra modern, recessed and face-mounted fountains, and battery types as well! The last word in performance and appearance.

...built for today's modern architecture

To get the newest in fountains or coolers, all you need do is to specify Halsey Taylor. Then you know you can meet the most modern architectural decor! Ask for latest catalog or see Sweet's.

The Halsey W. Taylor Co., Warren, Ohio



MAIL THIS COUPON for your FREE copy.

CENTRAL SCIENTIFIC CO., 1700 Irving Park Rd. • Chicago 13, Ill.
Please send me a FREE copy of your booklet SPA, "Demonstration
Apparatus for Teaching Earth-Space Science."

NAME _____

ADDRESS _____

ZONE _____ STATE _____



This booklet has been prepared as an aid to teachers in the selection of apparatus for a modern course in Earth-Space Science. Contains an outline of subjects as well as illustrations, descriptions and prices of required apparatus for each subject.

Send coupon for your FREE COPY of SPA today.



CENTRAL SCIENTIFIC CO.

A Subsidiary of Cenco Instruments Corporation
1716 Irving Park Road • Chicago 13, Illinois
Branches and Warehouses—Mountainside, N. J.
Boston • Birmingham • Santa Clara • Los Angeles • Tulsa
Houston • Toronto • Montreal • Vancouver • Ottawa

EQUIPMENT FOR ALL VOCATIONAL AND COMMERCIAL DEPARTMENTS

H
A
R
C
O



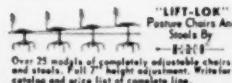
AC-460

AC-460 The deluxe of drawing tables. Large 24" x 24" adjustable drawing surface (larger available). Equipped with built-in board storage for 6 boards 20" x 28" and built-in taboret with 6 drawers with individual locks and keys and master key.



2006-A

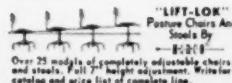
2006-A adjustable typing stand. After individual is properly seated by Harco adjustable chair, typewriter platform can be adjusted to correct relation between individual and typewriter. Provides proper posture and typing efficiency.



C-1624 Stool. Designed for all vocational departments. Drafting, biology, chemistry, art, shops, etc. Full 8" adjustment—cast iron base with round steel or wood seat. Back available.

WRITE FOR FREE 30 DAY NO OBLIGATION TRIAL BASIS AND QUANTITY PRICE LIST OF COMPLETE LINE.

GARRETT TUBULAR PRODUCTS, INC.
PO BOX 237, GARRETT, INDIANA



Over 25 models of completely adjustable chairs and stools for all educational needs. Write for catalog and price list of complete line.



Easy way to put 18 EXTRA DELTA "TOOLS" to work in your school shop

In addition to providing you with the finest, safest power tools your students can use, Delta offers you the most practical school shop teaching "tools" available from any source. Layouts for new or expanding school shops, guides for specifying tools, instruction manuals, project ideas—these and many more are available free, or at special discount, to school shop administrators and instructors. And every Delta tool is backed by unequalled dealer cooperation and service, and by a staff of Delta School Representatives devoted exclusively to work in industrial arts and vocational education. That's why *more than 72% of all U. S. school shops teach with Delta Power Tools.*

SEND FOR COMPLETE LIST OF DELTA SCHOOL SHOP AIDS
—write Rockwell Manufacturing Company, Delta Power Tool Division, 406M N. Lexington Ave., Pittsburgh 8, Pa.

DELTA POWER TOOLS

another fine product by

ROCKWELL



INDEX

Film Releases

Three films to teach the human side of science, "Aristotle and the Scientific Method," "Galileo" and "Isaac Newton," each 1 1/2 reels, sound, color or black and white. "Heart, Lungs and Circulation," "Improve Your Punctuation" and "The Lion and the Mouse," each one reel, sound, color or black and white. **Coronet Films**, 45 E. South Water St., Chicago 1.

For more details circle #521 on mailing card.

"Adventuring in Conservation," informational film on basic conservation principles and practices. **Audio-Visual Center, Indiana University**, Bloomington, Ind.

For more details circle #522 on mailing card.

"Instruments of the Symphony Orchestra," six color filmstrips with synchronized recordings, including, "String Instruments," "Woodwind Instruments," "Brass Instruments," "Percussion Instruments," "Melo-dious Percussion Instruments" and "The Orchestra." **The Jam Handy Organization**, 2821 E. Grand Blvd., Detroit 11, Mich.

For more details circle #523 on mailing card.

"New Nations in the World Balance," 58 black and white frames, with discussion manual. **The New York Times, Office of Educational Activities**, 229 W. 43rd St., New York 36.

For more details circle #524 on mailing card.

"Science for Better Living," eight Harbrace science filmstrips correlated with the "You and Science" textbook copyrighted by Harcourt, Brace & Co., Inc., suitable for use with basic general science program.

with 96-page teacher's lesson plan, now distributed by **Society for Visual Education, Inc.**, 1345 W. Diversey Pkwy., Chicago 14.

For more details circle #525 on mailing card.

"Hammers, Screw Drivers, Nails and Screws," set of nine filmstrips totaling 149 frames, black and white. **Stanley Tools, Div. of The Stanley Works, Educational Dept.**, 111 Elm St., New Britain, Conn.

For more details circle #526 on mailing card.

"As You Like It," 36 frames; "Julius Caesar," 38 frames, and "A Midsummer Night's Dream," 37 frames, filmstrips to aid in teaching English, with teaching handbooks. **United World Films, Inc.**, 1445 Park Ave., New York 29.

For more details circle #527 on mailing card.

Suppliers' News

Califone Corporation, 1020 N. LaBrea Ave., Hollywood 38, Calif., manufacturer of record players, sound systems, language laboratories and related teaching equipment, announces the acquisition of a major interest in its operation by **Rheem Mfg. Co.**, 400 Park Ave., New York 22. As of December 1 the company will be known as **Rheem Califone Corporation** and will be operated as a Rheem subsidiary to develop, manufacture and sell Rheem's recently announced line of teaching machines for schools and industry, in addition to the Califone line.

Photostat Corporation, 1001 Jefferson Rd., Rochester 3, N.Y., manufacturer of microfilm, photocopying and offset duplicat-

ing equipment and supplies, announces the acquisition of the **Flofilm Division of Diebold, Incorporated**, manufacturer of microfilm cameras, readers, processors and related supplies and equipment. The transaction gives Photostat a complete microfilming product line and it is stated that Photostat and Flofilm production will be integrated in the new modern Photostat plant and Flofilm service stations and film processing installations situated in cities where Photostat maintains branch offices will be relocated in Photostat facilities.

Spencer Press, Inc., School and Library Div., 179 N. Michigan Ave., Chicago 1, announces its appointment as national school and library distributor for **Columbia Records**. Ready access to many fine recordings relating to class interests and those for public libraries is now afforded through the alliance of Columbia Records with the distribution facilities of Spencer Press.

Thompson Ramo Wooldridge Inc. announces acquisition of a controlling interest in **Magnetic Recording Industries**, 11 E. 16th St., New York 3, producer of language laboratory and other electronic educational equipment. **Magnetic Recording Industries**, according to the announcement, will continue to operate autonomously as a subsidiary of **Thompson Ramo Wooldridge Inc.**, which includes **Dage Television**, producer of closed circuit television, **Bell Sound**, manufacturing tape recorders and stereophonic music components and consoles, and **Bel Canto**, producer of stereophonic tapes.



FREE—NEW 1960 CATALOG AND DIRECT-TO-INSTITUTIONS PRICES

Kitchen committees, social groups, attention! Direct-from-factory prices—discounts up to 40%—terms. Churches, Schools, Clubs, Lodges and all organizations. Our new **MONROE 1960 FOLD-KING FOLDING BANQUET TABLES** are unmatched for quality, durability, convenience and handsome appearance.

NEW—completely automatic lock on pedestals and legs. "Snaps" them rigidly in place, or folded flat. New pedestal and frame construction.

Mail coupon, write, wire or phone for our beautiful new catalog with color pictures of Folding Tables, Folding Chairs, Table and Chair Trucks, Portable Partitions, Bulletin Boards, Folding Risers and Platforms.

MAIL THIS SPECIAL COUPON TODAY!

Please send the new 1960 Monroe FOLD-KING Catalog—prices, discounts, terms.

Name of church, organization

Mail to

Title

Address

Zone

State

We are interested in (Tables, Chairs, etc.)

THE MONROE COMPANY 76 Church St. COLFAX, IOWA

Health-guarding heat for the life of the room with SHAW PanelVectors

Shaw PanelVectors distribute a health-guarding, unstratified balance of radiant and convected heat that only Nature—at her best—can rival. Rigid, fully-integrated steel and copper construction requires no servicing, is indestructible in institution use.

Get all of the Shaw PanelVector story. Write today for Cat. 59-G!

Shaw PanelVectors—
baseboard or wall-hung—
are available in sizes
to meet any room-heating
requirement.

SHAW PERKINS MFG. CO.

Properly Designed Room Heat Distribution Equipment
501 E. CARBON ST., PITTSBURGH 10, PENNA.



Key

448 Portable Steps and Chair Stand Line
Kico Mfg. Co., Inc.

449 Integral Elbow Brackets
Eazymotion Products Co., Inc.

450 Ajax with Chlorine Bleach
Calgon-Pulmotive Co.

451 Lite-Way
Day-Brite Lighting Inc.

452 Improved Bolt-Wall
General Tire & Rubber Co.

453 File and Magazine Unit
The Kitchen Maid Corp.

454 Shine-Up Spray
S. C. Johnson & Son, Inc.

455 Sew-Joint Combination
Rockwell Mfg. Co., Delta Power Tool Div.

456 Portable Science Frame Hood
Laboratory Furniture Co., Inc.

457 Wall Shower
Bradley Washmounts Co.

458 Fullstop Floor Wax
The Fuller Brush Co.

459 Verilux Book Copes
Eastman Kodak Co.

460 Battery Powered Scrubber-Vac
Pinnell System, Inc.

461 Adjustable Benchwork Stands
Kraeger Metal Products Co.

462 N-10 Super Dispenser
Norris Dispensers, Inc.

463 Model HF-57 Kit
Electronic Instrument Co., Inc.

464 Titan 3-Pass Heating Unit
Titanus Iron Works Div.

465 Beverage Servers in Two Sizes
Lamson, Ferry & Clark

466 Starter Kit
Charles Beeler Co.

467 DV2-2-1200 and DVW2-1200 Units
Lennox Industries Inc.

468 Adjustable Height Folding Table
Foldertec Co.

469 Tachette
Keystone View Co.

470 Pre-Cut Foil Sheets
Kaiser Aluminum & Chemical Sales, Inc.

471 P-1000 Master Vac
Premier Co.

472 Contemporary Drapery Designs
Edwin Raphael Co., Inc.

473 Mover and Trimmer
Locke Steel Chain Co.

474 2/8 Line Tables
Irwin Seating Co.

USE THESE CARDS

(We pay the postage)



TO "WHAT'S NEW"

INDEX TO ADVERTISEMENTS ON FOLLOWING PAGE

Pages 145-160

Key

475 Economy Line of Lab Ware
Covering Glass Works

476 PH Paper
Hand Photocopy & Business Equipment Corp.

477 Thunderball Gridde
Tournament Div.

478 Improved Parallel Bars
Porter Athletic Equipment Co.

479 Electric Cabinet Heaters
By Electric Ventilating Co.

480 "Iron" Darkening Drapery
E. I. DuPont de Nemours & Co.

481 Mobile Demonstrators
Warren Webster & Co., Inc.

482 Croc-Car Universal Angles
Crescent Metal Products, Inc.

483 "Zip-Top" Towel Carton
Brown Co.

484 Hot Food Kitchen
H. J. Heinz Co.

485 Tray and Silverware Dispenser
Lincoln Mfg. Co., Inc.

486 Garlite 101
Garden City Plating & Mfg. Co.

487 Sterilizer-Washer
Vacuum Can Co.

488 P.A. Speakers
Electro-Voice, Inc.

489 Electric Food Warmer
Trunkline Products Corp.

490 Speedomatic Lighting Trimmers
Salkinart Corp.

491 Steel Teachers Desks
The H-O-N Co.

492 Floor Sander
Stetler-Peterson Corp.

493 Combination Projector
Viewtex, Inc.

494 Photocopy "speed feed"
American Photocopy Equipment Co.

495 Basin Type Dispenser
Schubert Dispensers, Inc.

496 Vacuum Cleaner
Pullman Vacuum Cleaner Corp.

497 "The Microphone in P.A. Systems"
Shure Brothers, Inc.

498 Sale Microtie Binding Material
U.S. Rubber Co.

499 "Maintenance Guide"
Korvane Mfg. Co.

500 "Specification Manual"
Maple Flooring Manufacturers Assn.

501 Metal Lath News, re School Plans
Metal Lath Manufacturers Assn.

Key

502 Pointer System Lesson Materials
Thomas Organ Co.

503 Brochure No. 2000-G
Coco Steel Products Corp.

504 "School Shop Furnace Equipment"
Sunbeam Equipment Corp.

505 Catalog No. 50
Payne-Harris & Reed, Inc.

506 "Alloying Elements in Steel"
U. S. Steel Corp.

507 "Pocket Manual of Heating"
Dunham-Bush, Inc.

508 Booklet, "Chemistry for Today"
Encyclopedic Britannica Films Inc.

509 1959 Catalog and Instructional Guide
Childrens Press

510 Wheelit Folder
Gruber Products Co.

511 Cookbook
General Foods

512 "Plan-A-Shop" Cut Out Kit
Dure Metal Products Co.

513 "Electronic Aids to Education"
Radio Corporation of America

514 "Unit Ventilator Control Manual"
Barber-Colman Co.

515 1960 Parts and Equipment Catalog
Allied Radio Corp.

516 "Tire-Resistant Construction"
American Institute of Steel Construction

517 Short-run Printing Technic
G. E. Hall & Co.

518 Catalog and Reference Chart
Alvin & Co., Inc.

519 "Educational Aids" Catalog
National Assn. of Manufacturers

520 "Magic No. 2" Recipe Folder
Kellogg Co.

521 Films
Coronet Films

522 Film, "Adventuring in Conservation"
Indiana University

523 Filmstrip, "Instruments of the Symphony Orchestra"
The John Hancock Organization

524 Film, "New Nations in World Balance"
The New York Times

525 "Science for Better Living" Films
Society for Visual Education, Inc.

526 "Hammers, Screw Drivers, Nails and Screws" Film
Stanley Tool Div.

527 Shakespeare Filmstrip
United World Films, Inc.

I am interested in the items circled—

December, 1959 (a)

I am interested in the items circled—

December, 1959 (b)

WHAT'S NEW

448 449 450 451 452 453
454 455 456 457 458 459
460 461 462 463 464 465
466 467 468 469 470 471
472 473 474 475 476 477
478 479 480 481 482 483
484 485 486 487 488 489
490 491 492 493 494 495
496 497 498 499 500 501
502 503 504 505 506 507
508 509 510 511 512 513
514 515 516 517 518 519
520 521 522 523 524 525
526 527

ADVERTISEMENTS

528 529 530 531 532 533 534 535 536 537 538 539
540 541 542 543 544 545 546 547 548 549 550 551
552 553 554 555 556 557 558 559 560 561 562 563
564 565 566 567 568 569 570 571 572 573 574 575
576 577 578 579 580 581 582 583 584 585 586 587
588 589 590 591 592 593 594 595 596 597 598 599
600 601 602 603 604 605 606 607 608 609 610 611
612 613 614 615 616 617 618 619 620 621 622 623
624 625 626 627 628 629 630 631 632 633 634 635
636 637 638 639 640 641 642 643 644 645 646 647

WHAT'S NEW

448 449 450 451 452 453
454 455 456 457 458 459
460 461 462 463 464 465
466 467 468 469 470 471
472 473 474 475 476 477
478 479 480 481 482 483
484 485 486 487 488 489
490 491 492 493 494 495
496 497 498 499 500 501
502 503 504 505 506 507
508 509 510 511 512 513
514 515 516 517 518 519
520 521 522 523 524 525
526 527

ADVERTISEMENTS

528 529 530 531 532 533 534 535 536 537 538 539
540 541 542 543 544 545 546 547 548 549 550 551
552 553 554 555 556 557 558 559 560 561 562 563
564 565 566 567 568 569 570 571 572 573 574 575
576 577 578 579 580 581 582 583 584 585 586 587
588 589 590 591 592 593 594 595 596 597 598 599
600 601 602 603 604 605 606 607 608 609 610 611
612 613 614 615 616 617 618 619 620 621 622 623
624 625 626 627 628 629 630 631 632 633 634 635
636 637 638 639 640 641 642 643 644 645 646 647

NAME

INSTITUTION

ADDRESS

CITY

ZONE

STATE

TITLE

INSTITUTION

CITY

ZONE

STATE

Enter my one year subscription and bill me for \$4, Foreign \$6

NAME

INSTITUTION

ADDRESS

CITY

ZONE

STATE

Enter my one year subscription and bill me for \$4, Foreign \$6

**TO REQUEST
PRODUCT INFORMATION
FOLD THIS FLAP OUT
AND USE THESE CARDS**

(We pay the postage)



The two cards below are detachable and are addressed to us. With this flap folded out you can turn through the magazine for the items on which you want further information.

When, in either an advertisement or "What's New", you locate the product, turn to the index to advertisements on the following page or to the index of "What's New" items (left) where you will find the key number for the item. Items advertised are listed alphabetically by manufacturer. "What's New" items are in Key Number order. Circle the corresponding key number on the card below for each item in which you are interested. The second card is for the use of someone else who may also want product data.

Detach and mail — no postage required.

+ + + INDEX TO ADVERTISE

Key	Page
500 Associated Tie Adhesive Mastic (Belvoir Hopper Company)	58
502 Atoms Steel Products	46, 47
510 Adjusto Equipment Company	146
521 Alberene Stone Corporation	138
522 American Bridge Division, U. S. Steel Corporation	84, 85
523 American Duct Mfg. Company	183
524 American Gas Association	10, 11
525 American Gas Association	80, 81
526 American-Standard Corporation In- dustrial Division	144
527 Anheuser Company	112
528 Boston-Milking Company	50
529 Bay West Paper Company	122
530 Banton Manufacturing Company	24
531 Bausler Company, Charles	114
542 Blumerd of Pittsburgh	23
543 Burgess-Manning Company	84
544 Burroughs Corporation	5
545 Callico Corporation	24
546 Central Scientific Company	139
547 Cincinnati Time Recorder Company	120
548 Clarke Floor Machine Company	2
549 Collier & Son, P. F.	100
550 Conner Lumber & Land Company	24

Key	Page
561 Cramer Feature Chair Company	85
562 Creston Corporation	88
563 Day-rite Lighting, Inc.	97
564 Dependable Mfg. Company	134
565 Desks of America, Inc.	132
566 Delta Flag Company, Inc.	106
567 Dodge Division	147
568 Dodge Company, G. E.	157
569 Dudley Lock Corporation	134
570 Du Pont de Nemours & Co., Inc., E.I.	8
571 Du Pont de Nemours & Co., Inc., E.I.	123
572 Duracote Corporation	116
573 Eastman Kodak Company	80
574 Edwards Company, Inc.	26
575 Executone, Inc.	17
576 Field Enterprises, Inc.	135
577 Fluor Products Company	100
578 Garrett Tubular Products, Inc.	130
579 Gaylord Brothers, Inc.	149
580 Geneva Modern Electronics	118
581 Grade-Aid Corporation	142
582 Grallex, Inc.	30
583 Grolier Society Inc.	12, 19
584 Hardwood Products Corporation	102
585 Hillyard Chemical Company	133

Key	Page
596 Holman Mfg. Company, Inc., J.I.	104
597 Holman & Hale Manufacturing Com- pany, Inc.	101
598 Holophane Company, Inc.	9
599 Huntington Laboratories, Inc.	117
600 Insulrock Company	115
601 Irwin Seating Company	112
602 Jasinski Heating & Air Conditioning Div., Surface Combustion Corp.	21, 22
603 Johns-Manville	48, 49
604 Johns-Manville	129
605 Johnson & Son, Inc., S. C.	25, 26, 27
606 Kanner Manufacturing Company	124
607 Kohler Company	125
608 Laboratory Furniture Company, Inc.	132
609 Lohr & Pfeil Products Corporation	154
610 Levelor-Leveration, Inc.	Cover 2
611 Lily-Tulip Cup Corporation	93
612 Logan Engineering Company	108
613 Luminous Equipment Company	116
614 Magnetic Recording Industries	114
615 Maple Flooring Mfr. Assn.	Cover 4
616 Medart Products, Inc., Fred	31
617 Mellox Products Company, Inc.	100
618 Metwood Manufacturing Company	156
619 Minneapolis-Honeywell Regulator Co.	21, 23
620 Powers Regulator Company	37
621 Radio Corporation of America	111
622 Reinhard-Borg Corporation	44
623 Republic Steel Corporation	14, 15
624 Republic Steel Corporation	126, 127

FIRST CLASS
PERMIT NO. 136
CHICAGO, ILL.

FIRST CLASS
PERMIT NO. 136
CHICAGO, ILL.

BUSINESS REPLY CARD
No Postage Stamp Necessary If Mailed in the United States

POSTAGE WILL BE PAID BY

THE NATION'S SCHOOLS

919 NORTH MICHIGAN AVENUE

CHICAGO 11, ILLINOIS

BUSINESS REPLY CARD
No Postage Stamp Necessary If Mailed in the United States

POSTAGE WILL BE PAID BY

THE NATION'S SCHOOLS

919 NORTH MICHIGAN AVENUE

CHICAGO 11, ILLINOIS

ENTS

Key	Page
625 Richards-Wilcox Mfg. Company	18
626 Micro Laminated Products, Inc.	126
627 Miles Company, Oscar C.	121
628 Rockwell Mfg. Company	129
629 Royal Malleo Corporation	95
630 St. Charles Mfg. Company	127
631 Shaw-Foxboro Manufacturing Company	120
632 Sheldon Machine Co., Inc.	120
633 Simes Valve Company	1
634 Southern Equipment Company	161
635 Spencer Turbine Company	140
636 Stover Equipment Company	128
637 Standard Electric Time Company	107
638 Steiner Company, Inc.	121
639 Stromberg Time Corporation	7
640 Taylor Company, Hickey W.	128
641 Thennet Industries, Inc.	127
642 Tompkins Products Div. of McGraw-Hill Company	87
643 Toledo Scale Company	89
United States Steel Corporation	18, 23
532 United States Steel Corporation, Ameri-Cam Bridge Division	84, 85
644 Vestal, Inc.	140
645 Vitec Manufacturing Corporation	40, 41
646 Youngquist Hardware Co., Van Dorn Division	105
647 West Chemical Products Inc.	33

RUGGED CONSTRUCTION FEATURES MAKE
"MODERNFOLDS..." "STUDENT-PROOF!"

Double-strength Modernfold doors withstand a lifetime of hard school use!

Modernfold doors with inner steel construction are built to take a lifetime of abuse and still keep their good looks...still keep operating smoothly, quietly. They're the most rugged folding doors made.

That's why so many architects specify Modernfold doors wherever privacy is needed...wherever more usable space is needed. Modernfolds can make *one room* do the work of *two, three, four...and more!* And they glide smoothly...no slamming or banging.

Repeated tests on the fabric models prove that the vinyl-coated fabric resists thousands of revolutions of

an abrasive wheel, withstands flexing equal to hundreds of thousands of openings...will outlast generations of school pupils!

And now, Modernfolds come in wood grain, too...in richly handsome hardwood finishes. They're quiet and easy-gliding.

All Modernfolds are easy to clean. Wiping with a damp cloth will keep them looking like new.

Thousands of schools are equipped with Modernfold doors. Get all the details from your local distributor. He's listed under "Doors" in the Yellow Pages.

NEW CASTLE PRODUCTS, INC., Dept. B, New Castle, Indiana - Manufacturers of "Modernfold" Folding Doors, "Air Doors", "Modern-cote" Wall Coverings and "Peabody" School Furniture - In Canada: New Castle Products Canada, Ltd., St. Lambeth, Que.

modernfold
DOORS

the first and finest in folding doors

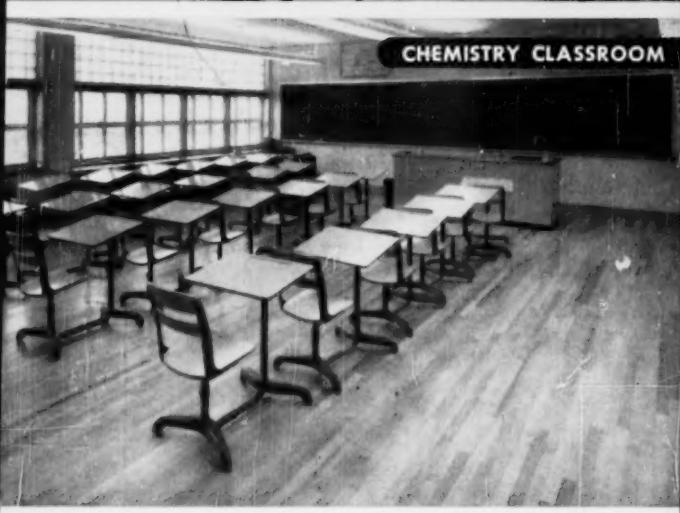
STUDY ROOM



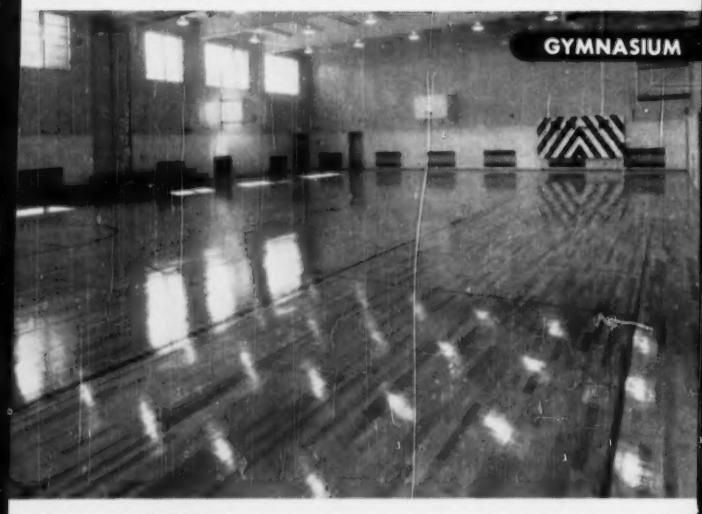
HOME ECONOMICS ROOM



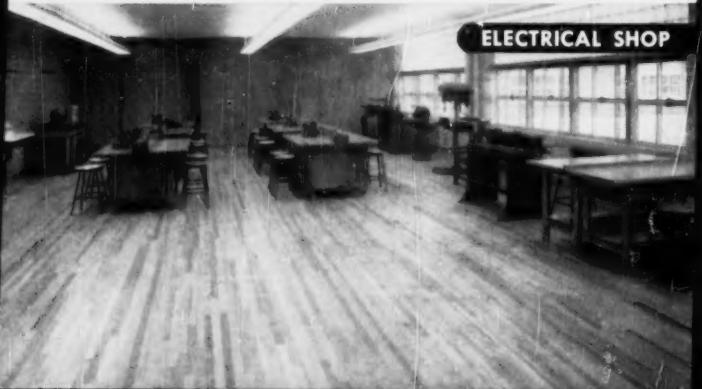
CHEMISTRY CLASSROOM



GYMNASIUM



ELECTRICAL SHOP



General Contractor, John W. Cowper Co., Inc., Buffalo
Photographs by Duane D. Henry, Buffalo

60 classrooms—
gymnasium—
130,000 feet of
MFMA First Grade

Northern
HARD MAPLE

*"because,
after years of use,
we like its durability,
comfort and easy,
low-cost maintenance"*

The Northern hardwood flooring industry is proud to rest the case for "the finest floor that grows" upon the above forthright words of Mr. Eugene L. Walter, A.I.A., associate with F. J. and W. A. Kidd, Architects, Buffalo, N. Y. The new Herbert C. Hoover Junior High School, Town of Tonawanda, N. Y., is a measurably better-serving, lower-costing structure, over the years, because of its tough, resilient, beautiful, longer-lasting floors of *Northern-Grown Hard Maple*.

*where wordless "welcome"
softly glows... you'll find... the finest*

SEE SWEET'S 13j-MA

*floor
that grows*

Write for data on conventional and mastic-laid floor installation, and new list of MFMA-approved floor finishing products tested under a new, improved specification.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
589 Pure Oil Bldg., 35 E. Wacker Dr., Chicago 1, Illinois

